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THE

BOTANICAL REGISTER:

CONSISTING OF

Coloured Figures

OF

EXOTIC PLANTS,

CULTIVATED IN

BRITISH GARDENS:

WITH THEIR

HISTORY AND MODE OF TREATMENT.

THE DESIGNS BY

SYDENHAM EDWARDS,

AND OTHERS.

VOL. XIII.

—— viret semper —— nec fronde caducâ
Carpitur.

LONDON:
JAMES RIDGWAY, 169 PICCADILLY.

1827.

MISSOURI
BOTANICAL
GARDEN.

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MYRTUS? obscura.

Small-flowered Myrtle.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. **Myrtaceæ.**

MYRTUS.—*Linn. Juss. Cal.* 4-5-partitus. *Petala* 4-5. *Stamina* debilia, receptaculo angusto inserta. *Ovarium* bi-tri-loculare, polyspermum: ovulis placentæ centrali insertis. *Stigma* simplex. *Pericarpium* baccatum, polyspermum. *Testa* tenuis. *Embryo* arcuatus, teres, cotyledonibus radiculâ duplò brevioribus. *Lindley, Collectanea Botanica, fol.* 19.

M. *obscura;* pedunculis subsolitariis axillaribus brevissimis, foliis subsessilibus ovato-lanceolatis acuminatis obtusis, calycibus pilosis 4-fidis bibracteolatis: bracteolis subulatis, petalis extùs pilosis, ramulis hirsutis.

Frutex *virgatus, ramis tenuibus, pilosis.* Folia *opposita, subsessilia, ovato-lanceolata, acuminata, obtusa.* Flores *axillares, solitarii geminive, pedicellis petiolis foliorum paulò longioribus, minimi, albi.* Calyx 4-*sepalus, sepalis utrinque villosis, ovato-acuminatis, patentibus.* Petala 4, *extùs pilosiuscula, ovalia, subundulata, calyce longiora.* Stamina *indefinita, disco albo pulvinato piloso inordinatim inserta, inæquilonga, interioribus brevioribus.* Filamenta *alba, filiformia.* Antheræ *parvæ, rotundæ, fuscæ.* Ovarium *minimum, biloculare, polyspermum, ovulis ut credo ascendentibus, sed indistinctè visis in flore unico.* Stylus *filiformis, apice arcuatus.* Stigma *simplex.*——Obs. *Bracteolæ adsunt duæ subulatæ sub sepalis duobus oppositis.*

A native of Maranham, whence seeds were sent to the Horticultural Society, by Robert Hesketh, Esq., in 1824. Requires the protection of a stove, and flowers in November. Propagated with difficulty by cuttings.

A very uncertain species of Myrtus, from which it differs in having the stamens inserted irregularly on the whole face of the discus, up to the very base of the style. But as its ovarium has not been yet satisfactorily examined, and as its fruit is wholly unknown, we place it provisionally in Myrtus, in the hope that the next volume of the learned M. Decandolle's Prodromus may contain further information respecting its structure, if the species should prove to be known to him.

A twiggy shrub, with fine, hairy branches. *Leaves* opposite, subsessile, ovate-lanceolate, acuminate, obtuse. *Flowers* axillary, solitary or twin, their pedicels a little longer than the leaves, very small, white. *Calyx* of 4 sepals, which are villous on each side, ovate-acuminate, spreading. *Petals* 4, rather hairy outside, oval, somewhat wavy, longer than calyx. *Stamens* indefinite in number, inserted irregularly into a white pulvinate disk, of unequal lengths, the innermost being the shortest. *Filaments* white, filiform. *Anthers* small, round, pale brown. *Ovary* 2-celled, many-seeded. *Style* filiform, arcuate at the apex. *Stigma* simple. Two little subulate bracteæ are placed under two opposite sepals.

J. L.

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GEISSOMERIA longiflora.

Long-flowered Geissomeria.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. ACANTHACEÆ.

GEISSOMERIA.——*Flores* sessiles spicati. *Bracteæ* tres, exteriore majore. *Calyx* pentaphyllus, sepalis glumaceis imbricatis inæqualibus, dorsali majore. *Corolla* tubulosa, clavata, limbo subæquali, lacinia inferiore barbata. *Stamina* subæqualia, versùs basin tubi inserta. *Antheræ* muticæ, biloculares, loculis parallelis, apice piloso cohærentes. *Pollen* cylindraceum glabrum! *Ovarium* pedicellatum biloculare, loculis dispermis. *Stigma* infundibulare hinc extùs pubescens. ——Frutex (*Brasiliensis*) foliis *integris oppositis,* spicis *terminalibus axillaribusque.*

Geissomeria longiflora.

Caulis *erectus, teres, leviter pubescens.* Folia *opposita, ovato-lanceolata, undulata, sessilia, ad basin attenuata, suprà glabra, subtùs subpubescentia, ad venas sericea.* Spicæ *terminales, et axillares, ad basin foliosæ, arctè imbricatæ.* Bracteæ 3, *ovatæ, nervosæ, ciliatæ, pubescentes, alterâ exteriore duplò majore, duabus lateralibus brevioribus.* Calyx 5-*phyllus, glumaceus, glaber, ciliatus, sepalis inæqualibus, imbricantibus, dorsali majore, interioribus minoribus.* Corolla *punicea, tubulosa, velutina, tubo arcuato, clavato, subventricoso, intùs glabro;* limbo *erecto, 4-fido, bilabiato, lobo superiore rotundato, transverso, emarginato, inferioribus obtusis, lateralibus patentibus, inferiore majore barbato.* Stamina 4, *subæqualia, tubi longitudine, versùs ejus basin inserta.* Filamenta *filiformia, basi dilatata, intùs pilosa, basi densè villosa.* Antheræ *lineares, apicibus acutis pilosis cohærentes, biloculares.* Pollinis particulæ *magnæ, cylindricæ, utrinque rotundatæ, glaberrimæ, diametro longitudinali transversalem ter superante.* Ovarium *ovatum, attenuatum, subpedicellatum, loculis dispermis.* Stylus *filiformis.* Stigma *infundibulare, hinc lineâ pilosâ.*

A handsome shrubby plant, with much of the habit of Ruellia: raised from Brazilian seeds, by Thomas Carey Palmer, Esq., with whom it flowered in the stove, in October last.

It does not appear to us that it can be strictly referred to any genus of Acanthaceæ at present established. From

Ruellia and Blechum it is clearly distinguished both by its inflorescence, calyx, and ovarium. From Lepidagathis it differs in its calyx, in the regularity of its corolla, and very much in habit. Ætheilema, or Phaylopsis, to which it may be considered most nearly related, is characterised by the large size of the dorsal lobe of its calyx, and by the uniformity of the other divisions, and, moreover, by its being 5-parted only, not distinctly 5-leaved, with glumaceous sepals overlapping each other. The fruit of Geissomeria is unknown. Its pollen is remarkably large, cylindrical, with rounded ends, and smooth. We are not prepared to state the value of this curious character; but it may possibly be common to several genera of the order. The pollen of Acanthus mollis has certainly the same figure, but is rough, not smooth.

Stem erect, round, slightly downy. *Leaves* opposite, ovate-lanceolate, wavy, sessile, tapering to the base, smooth above, somewhat pubescent beneath, silky at the veins. *Spikes* terminal, and axillary, leafy at the base, closely imbricated. *Bracteæ* 3, ovate, nerved, ciliated, downy, the exterior one twice as large as the two lateral ones. *Calyx* 5-leaved, glumaceous, smooth, ciliated, with unequal, imbricating sepals, of which that at the back is the largest, and those which are most interior are the smallest. *Corolla* scarlet, tubular, velvety, with an arcuate, clavate, somewhat ventricose tube, which is smooth inside; the *limb* erect, 4-fid, the upper lobe rounded, transverse, ovate, emarginate, the others entire, the lateral ones being smaller than the lowest, which is bearded. *Stamens* 4, nearly equal, the length of the tube, towards the base of which they are inserted. *Filaments* filiform, dilated at the base, hairy inside, densely villous at the base. *Anthers* linear, two-celled, cohering by their acute hairy apices. *Particles of Pollen* unusually large, cylindrical, rounded at each end, quite smooth, three times as long as broad. *Ovarium* ovate, tapering, somewhat stalked, with 2-seeded cells. *Style* filiform. *Stigma* funnel-shaped, with a hairy line on one side.

J. L.

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OXALIS tenera.

Delicate Oxalis.

DECANDRIA *PENTAGYNIA.*

Nat. ord. Oxalideæ.
OXALIS. Suprà, vol. 2. *fol.* 117.

O. foliolis obcordatis glabris, scapo flaccido lævi sub-bifloro, stylis stamina omnia superantibus. *Sprengel, syst. veg.* 2. 424.

Herbula, *foliis numerosis, parvis, scapo brevioribus.* Foliola *patentia v. reflexa, ternata, altè obcordata, glabra, suprà atro-olivacea, infrà puberula, rubro suffusa.* Scapus *triuncialis, erectus, medio bibracteolatus, bracteolis oppositis.* Pedunculus *villosus.* Calyx *glaberrimus, immaculatus, sepalis subulatis.* Petala *lutea, retusa.* Styli *tubo breviores, staminibus longiores, erecti.*

Roots of this were sent to the Horticultural Society, from Porto Alegre, in Brazil, by Mr. Sellow, and flowered in a stove, in May 1826. We have no doubt that it is the O. tenera described by Sprengel, although that Botanist describes the scapes as being flaccid. He would naturally be led into such a mistake by his dried specimens.

A little plant, with numerous small leaves, shorter than the scapes. *Leaflets* spreading or reflexed, ternate, deeply obcordate, smooth, above dark olive-green, beneath a little downy, and tinged with red. *Scape* about 3 inches high, erect, with two opposite bracteolæ in the middle. *Peduncle* villous. *Calyx* very smooth, destitute of spots, with subulate sepals. *Petals* yellow, retuse. *Styles* shorter than the tube, longer than the stamens, erect.

J. L.

...rt. del. Pub by J. Ridgway 169 Piccadilly Mar 1. 1827. J. Watts sc.

CLITORIA virginiana.

Virginian Clitoria.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Tribus* Loteæ *Decandolle.*

CLITORIA L.—*Calyx* basi bracteis 2 majusculis instructus, 5-fidus. *Corollæ* vexillum amplum. *Stamina* diadelpha, cum petalis non imo calyci sed suprà basin inserta. *Stylus* apice subdilatatus. *Legumen* lineare compressum rectum bivalve styli basi acuminatum, 1-loculare, polyspermum. *Semina* isthmis cellulosis sæpè intercepta.——Herbæ *scandentes.* Folia *pinnata cum impari sæpiùs 1-juga, rariùs 2-3-juga, foliolis sæpiùs stipellatis.* Flores *axillares, pedicellati, ampli, albi, cærulei aut purpurei, sæpè resupinati.* Decand. prodr. 2. 233.

Sect. III. Centrosema. *D. C.*

Calyx campanulatus ultrà medium 5-fidus. Vexillum postice calcaratum.—Bracteolæ longitudinaliter striatæ. Folia 1-juga, cum impare.

C. *virginiana;* caule scandente foliisque glabris aut subpuberulis, pedunculis 1-4-floris, bracteolis lanceolatis circiter calycis longitudine, leguminibus linearibus compressis. *Decandolle l. c.*

C. major scandens, foliis geminatis. *Browne jam.* 298.

C. virginiana. *Linn. sp. pl.* 1026. *Swartz. obs.* 272. *Willd. sp. pl.* 3. 1069.

Caulis *volubilis, glaber, striatus.* Folia *unijuga, cum impare, ovato-oblonga, membranacea, glabriuscula, subrugosa, petiolo pubescente.* Pedunculi *axillares, bi-tri-flori, petiolorum longitudine.* Calyx *5-fidus, laciniis subulatis pubescentibus.* Bractea *ovato-lanceolata, calycis longitudine.* Corolla *magna, resupinata, lilacina, vexillo emarginato, dorso calcarato.* Legumen *longum, lineare, glabrum, marginatum, polyspermum.* Semina *cylindracea, truncata, olivacea, fusco atroque nebulosa.*

A native, according to Pursh, of hedges in Virginia and Carolina; according to Decandolle, of Jamaica and Saint Domingo also. The plants from which this drawing was made, were raised from seeds received from Rio Janeiro, and communicated to Henry Bellenden Ker, Esq., by Mrs. Arnold Harrison. Our drawing was made in Mr. Ker's garden, in August 1826.

Willdenow remarks, that he had seen several varieties with narrower or broader leaves, blue and white corollas, and vexilla smooth or downy outside. Decandolle distinguishes them with a suggestion that possibly several species are confounded under the name of C. virginiana. We, having no means of determining the latter question, content ourselves with describing the plant before us, so that it may be rendered available to whomsoever may find leisure to extricate the synonymy of the species.

Stem twining, smooth, striated. *Leaves* of one pair, with an odd one, ovate-oblong, membranous, smoothish, subrugose, with a downy petiole. *Peduncles* axillary, 2 or 3-flowered, the length of petioles. *Calyx* 5-fid, with subulate, downy segments. *Bractea* ovate-lanceolate, the length of calyx. *Corolla* large, resupinate, lilac-coloured, with an emarginate vexillum, calcarate at base. *Pod* long, linear, smooth.

J. L.

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FUCHSIA parviflora.

Small-flowered Fuchsia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRARIÆ.
FUCHSIA. *Suprà, vol.* 10. *fol.* 847.

F. *parviflora*; foliis sparsis oppositisque cordato-ovatis obtusis glaucis petiolis brevioribus, calycibus reflexis, stigmate capitato crasso 4-lobo.

Frutex *aspectu omninò F. lycioidis.* Folia *ovata v. oblonga, petiolis breviora, obtusa, integerrima, concava, nunc dentata, glauca, glaberrima.* Flores *solitarii, axillares, cernui, foliis breviora.* Ovarium *ovale, lævigatum.* Calyx *parvus, pallidè roseus, sepalis reflexis, rubris, tubi longitudine.* Petala *purpurea, parùm imbricata, erecta, sepalis breviora.* Stamina 8, *intrà faucem inserta,* 4 *petalis oppositis brevioribus.* Stylus *exsertus.* Stigma *crassum, capitatum, 4-lobum.*

Very like F. lycioides, from which it differs in the greater length of the petioles, in the smaller size of the flowers, and some other particulars. A half-hardy shrub, growing freely in the open air in the summer, and capable of enduring a tolerably mild winter, but requiring protection in very severe weather.

A native of Mexico. Seeds were presented to the Horticultural Society, in 1824, by the Right Honourable George Canning. It flowered in the Chiswick Garden, for the first time, in an open border, in July 1826.

A shrub with altogether the appearance of F. lycioides. *Leaves* ovate or oblong, shorter than petioles, obtuse, entire, concave, sometimes serrated. *Flowers* solitary, axillary, cernuous, shorter than the leaves. *Ovary* oval, polished. *Calyx* small, pale pink, with red, reflexed sepals, the length of the tube. *Petals* purple, but little overlapping, erect,

shorter than the sepals. *Stamens* 8, inserted within the orifice, the four which are opposite the petals being shorter than the rest. *Style* exserted. *Stigma* thick, capitate, 4-lobed.

J. L.

M. Hart del.

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CRINUM sumatranum.

Sumatra Crinum.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDEÆ.
CRINUM. *Suprà, vol.* 1. *fol.* 52.

C. *sumatranum;* bulbo ovali non caudescente, foliis lato-loratis lineari-lanceolatis rectis canaliculatis margine albo cartilagineo scabris rigidis, umbella multiflora subsessili. *Ker in journ. of science and art,* 1817. *No.* 7.

C. sumatranum. *Roxb. Carey, hort. Beng.* 23.

C. sumatranum; bulbo ovali, foliis rigidis erectis margine cartilagineo asperis, umbella multiflora, tubo limbum æquante, stylo staminibus breviore, capsula grandi. *Sprengel, syst.* 2. 54.

Bulbus *leviter caudescens, brevissimus.* Folia *rigida, rectiuscula, lorato-lanceolata, margine cartilaginea, aspera, apice obtusiuscula, Agaven simulantia, atro-viridia, opaca.* Flores *plurimi, majusculi, albi, subsessiles, odorati.* Tubus *cylindraceus, ut et ovarium rubescens,* 4-*uncialis.* Laciniæ *lineares, tres lineas latæ, tubi longitudine, rotato-patentes, demùm pendulæ.* Filamenta *ascendentia, punicea, limbo multò breviora.* Stylus *filamentis brevior.*

For our specimens of this remarkable plant we are obliged to the Earl of Caernarvon, by whose permission it was sent us, with some valuable notes, by James Robert Gowen, Esq. In inflorescence it bears a close resemblance to Crinum asiaticum, (toxicarium of Roxburgh); but the habit of the plant is wholly different; the rigid, erect, fleshy leaves giving it the aspect of an Agave.

Two bulbs of this species exist in the rich collection at Highclere, both of which were sent to the Earl of Caernarvon by Dr. Wallich, together with many other valuable plants. Several more were sent to the same nobleman, from Sumatra, by the late lamented Sir Thomas Stamford Raffles; but they unfortunately perished in their voyage.

It is a rare species, and very shy flowerer, having never bloomed at Highclere till last summer.

"The *bulb*," we are informed by Mr. Gowen, "is slightly caudescent, so short as to be scarcely defined, the leaves diverging a short distance above the root-stock, so as, together with their stiff, almost upright posture, to give the plant somewhat of the aspect of an Agave. *Leaves* very rigid, concave, dark, dull, unpolished green, edged with a very harsh, minutely serrated cartilaginous margin. *Flowers* numerous, middle-sized, white. *Peduncles* very short; germen and tube tinged with red. *Tube* cylindrical, 4 inches long. *Laciniæ* of the limb linear, a quarter of an inch wide, equal to the tube in length. *Filaments* ascending, crimson, considerably shorter than the limb. *Style* shorter than the filaments. *Flowers* considerably fragrant."

It is well known to our readers that there exists much difference of opinion among Botanists as to the limits which nature has fixed between the genera Crinum and Amaryllis; some contending than none but plants with a rotate equal limb to the flower, linear segments, and spreading stamens, are referable to Crinum, and therefore excluding from that genus, with Linnæus and Mr. Ker, such plants as Amaryllis longifolia of L'Héritier, and Amaryllis zeylanica of Linnæus; others being of opinion that the two latter, with their allies, must be considered genuine species of Crinum, on account of the testa of their seeds being in the same remarkable state of anamorphosis as the testa of undoubted Crinums. Upon this subject Mr. Gowen has favoured us with some interesting observations, which, with his permission, we here insert.

"I am persuaded that these plants, so closely allied to Crinum, but now placed along with Amaryllis, are true Crinums, and ought, at most, to form only a subdivision of that genus. They all produce seeds absolutely undistinguishable from those of the regular Crinums, either in appearance or structure, and quite dissimilar to those of an Amaryllis. With the regular Crinums, they all breed with the greatest facility. I have raised many crops; Mr. William Herbert more; and these produce fertile seeds. Last spring, I raised seedlings from the plant, which were obtained by bringing together the bulbous Amaryllis (Cri-

num), longifolia of the Cape, and the columnar Crinum bracteatum; and Mr. W. Herbert has not only raised seedlings from the offspring of various alliances between the true Crinums and those ranked as Amaryllis, but has made their pollen fertilise other Crinums, and *vice versâ*. There is no other difference between the true Crinums and those placed under Amaryllis, than a slight variation in the form of the corolla, and in the inclination of the filaments. The form of the bulb constitutes no essential distinction, as it varies greatly in the acknowledged members of the genus, being spherical, or conical, or cylindrical, or of mixed form; these forms graduate into each other, and in some species the trace of a bulb is hardly to be made out, the leaves diverging at once from the root stock. In Crinum erubescens, which never loses its leaves, the bulb is scarcely to be traced: this plant has been frequently sent me from intertropical America under the name of White Water Lily. In Crinum asiaticum, and its allies, it is decidedly columnar, and the foliage persistent: these inhabit the deep alluvia of rivers; are exposed to inundation during the season of the periodical rains; and are always sufficiently supplied with moisture to be kept in a state of growth. Amaryllis ornata, (Crinum scabrum of Herbert,) and all its kindred Amarylloid Crinums, have true bulbs, and in our collections cannot be preserved in health without a season of absolute rest: their foliage is deciduous, in C. scabrum, and others, sloughing off completely from the bulb. These inhabit dry ground in their native regions, and are exposed to long periodical returns of great drought, and to the utter loss of their foliage. The existence of the bulb, in a form more or less perfect, or its entire absence, seems to be closely connected with the habitats of the plant; and supposing all Crinums to have branched out from one primary type, as I much suspect, the variation of form has perhaps resulted from a provision contrived by nature for the purpose of enabling it to adapt itself to the exigences of its locality."

J. L.

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ONCIDIUM divaricatum

Cushion-lipped Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Tribus* Vandeæ *Lindl.*
ONCIDIUM. *Suprà, vol.* 9. *fol.* 727.

Div. I. *Perianthii foliola omnia discreta.* Lindl. Coll. Bot. xxvii.

O. *divaricatum;* bulbis subrotundis ancipitibus compressis, foliis ovalibus apiculatis carnosis, labello crenulato: lobo medio transverso emarginato angustiore; disco pubescente pulvinato, stigmate mutico, columnæ alis semilunatis integerrimis, paniculâ divaricatissimâ.

β. *cupreum;* perianthii foliolis angustioribus cupreis vix maculatis.

Bulbi *cæspitosi, compressi, ancipites, squamis magnis acutis vaginantibus venosis sphacelatis vestiti, monophylli.* Folia *crassa, carnosa, pallidè lutea, suberecta, ovalia, obtusa cum acumine, ad basin ferè semper concava, ad marginem sæpiùs hic illic fissa.* Scapus *radicalis,* 1½ *pedalis, teres, purpureus.* Panicula *multiflora, divaricatissima, flexuosa, internodiis subæqualibus.* Flores *magni, lutei, paululum olivacei, labello excepto.* Perianthii *foliola* 5, *discreta, patentia, spatulato-oblonga, subæqualia, basin versùs sanguineo maculata.* Labellum *planum, trilobum, crenulatum, guttatum, lobis lateralibus rotundatis, basi altè cordatis, intermedio minore emarginato sæpiùs complicato; disco pubescente, pulvinato, cruciato, fulvo.* Columna *glabra, alis semilunatis integerrimis.* Stigma *muticum.* Anthera *ecristata.* Pollinia 2, *caudiculata, glandulâ parvâ.*

The empire of Brazil seems to be inexhaustible in new forms of Orchideous plants. Every year is bringing us acquainted with species and genera previously unknown; so little indeed has the rich vegetation of that fertile land been investigated, that almost every epiphyte proves, upon its first appearance in our gardens, to be new to Science. To this fact, the various volumes of this work bear ample testimony. The subject of the present plate was sent to the Horticultural Society by A. J. Heatherly, Esq., his Britannic Majesty's Vice-Consul at Rio Janeiro. It blossomed, in October 1826, in the stove, where it grows readily in decayed vegetable matter. The variety β. *cupreum,*

above indicated, was received from Mr. Heatherly at the same time. It differs nothing in foliage; but the divisions of the flower are much narrower, of a bright copper-colour towards the base, and scarcely at all varied with spots.

Oncidium is the most distinctly characterised of all the genera of epiphytous Orchideæ: the spreading segments of the perianthium; the 3-lobed labellum, of various figures, but always having a fleshy crested discus; the winged columna, and the two pollen masses hollowed out at their back, and attached to a slender pedicel, together with the radical inflorescence,—afford characters which have never yet been materially affected by the discovery of Transition Species. We may, however, take this opportunity of remarking, that the genus *Fernandesia* of the Flora Peruviana, of which the *Lockhartia elegans* of the Botanical Magazine, fol. 2715, is a species, and from which *Pachyphyllum* of M. Kunth is probably not distinguishable, differs from Oncidium in little besides its axillary inflorescence, imbricated stems, dilated bracteæ, and solid pollen masses. By the latter character it is neatly distinguished from Oncidium, which has hollow pollen masses cut open at the back.

Of Fernandesia there are three, if not a greater number of species, in our gardens. Mr. Lambert is the fortunate possessor of some from Pavon; and we were a few months ago obliged by a sight of fresh specimens, in flower, of a species perhaps not different from F. subbiflora, with which we were favoured by Messrs. Loddiges.

Bulbs in clusters, compressed, two-edged, one-leaved. *Leaves* thick, fleshy, pale yellow, nearly erect, oval, obtuse with a point, generally concave at base, and split here and there at the margin. *Scape* about a foot and half high, round, purple. *Panicle* many-flowered, very much divaricating, flexuose. *Flowers* large, yellow, rather olive-coloured, except the lip. *Segments of the perianthium* 5, separate, spreading, spatulate-oblong, nearly equal, spotted with crimson towards the base. *Lip* yellow, flat, 3-lobed, crenulate, spotted; the lateral lobes rounded, deeply cordate at base, the intermediate one smaller, emarginate, often folded together.

J. L.

...il 1. 1827. S. Watts

DODONÆA oblongifolia.

Oblong-leaved Dodonæa.

OCTANDRIA *MONOGYNIA.*

Nat. ord. SAPINDACEÆ. *Tribus III.* Dodonæaceæ *Kunth. Decandolle.*

DODONÆA L.—*Flores* sæpè abortu polygami aut dioici. *Calyx* 4-partitus deciduus. *Pet.* 0. *Stamina* 8, filamentis brevissimis, antheris oblongis linearibusve. *Stylus* filiformis ab alis capsulæ distinctus, apice subtrifidus. *Capsula* 2-3-valvis, 2-3-loc., 2-3-alata, angulo centrali 2-3-angulato in faciebus seminifero. *Semina* bina, subglobosa.——Frutices *foliis oblongis sæpiùs viscosis.* Decand. prodr. 1. 616.

D. *oblongifolia;* foliis oblongis submucronatis integerrimis basi attenuatis, floribus terminalibus subsessilibus. *Link. enum.* 1. 381.

Ramuli *glabri, obtusè triquetri, rubri.* Folia *obovata, mucronata, coriacea, leviter pubescentia, nunc apice subcuneata, integerrima v. subdentata, junioribus tantùm viscosis.* Racemi *pauciflori, terminales, foliis breviores.* Flores *dioici.* Antheræ *magnæ, purpureæ.* Stigmata *filiformia, rubra.*

A small shrub, native of New Holland. Requires the protection of the greenhouse, and flowers in October. Our drawing was made from specimens supplied by Mr. Mackay, of the Clapton Nursery.

This is referred by Decandolle, with doubt, to Dodonæa dioica of Roxburgh, a plant with which we are unacquainted; but as he compares that species with D. triquetra, and not with D. cuneata, we conclude it must be distinct from this. Professor Sprengel refers D. oblongifolia to D. cuneata; but upon comparing it both with Mr. Rudge's figure in the Linnæan Transactions, and with our native New Holland specimens, which precisely agree with that figure, we have formed a contrary opinion. In D. cuneata, the leaves are very small, always decidedly cuneate, with the lateral angles frequently elongated into

a tooth; they are covered with viscidity, and being generally fascicled, give the bush the appearance of some species of Berberis; the racemes are represented by Mr. Rudge as compound, lax, and much longer than the leaves;—all which characters are at variance with the plant before us. We have examined cultivated and wild specimens of other species of Dodonæa, but we find no material difference between them; so that we cannot think the distinctions now pointed out between D. cuneata and D. oblongifolia depend upon cultivation.

Branchlets smooth, obtusely triquetrous, red. *Leaves* obovate, mucronate, coriaceous, slightly pubescent, sometimes rather wedge-shaped at the apex, entire, or a little toothed, the young ones only being viscid. *Racemes* few-flowered, terminal, shorter than the leaves. *Flowers* diœcious. *Anthers* large, purple. *Stigmas* filiform, red.

J. L.

FUCHSIA gracilis; β. *multiflora.*

Many-flowered Slender Fuchsia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRARIÆ.
FUCHSIA. *Suprà, vol.* 10. *fol.* 847.

F. *gracilis;* ramis tenuissimè pubescentibus, foliis oppositis glabris longè petiolatis remotè denticulatis, petalis retusis, staminibus exsertis, floribus foliis multò longioribus. *Suprà, fol.* 847.
α. foliis majoribus longè petiolatis, stigmate fusiformi. *Suprà, cum synonymiâ omni.*
β. *multiflora;* foliis minoribus glaucis breviter petiolatis, stigmate conico.
γ. *tenella;* foliis floribusque minoribus, stigmate crasso capitato 4-lobo.
Fuchsia tenella. *Hort.*
δ. *macrostema;* foliis subquaternis floribusque majoribus, stigmate capitato 4-lobo.
Fuchsia macrostema. *Flora Peruviana,* 3. 324.

Fruticulus *densè ramosus, æstate decedente floribus sub dio ferè obtectus.* Ramuli *tenuissimè pubescentes.* Folia *breviter petiolata, ovata, denticulata, glauca, utrinque sub lente puberula.* Flores *ut in typo, sed paulò minores, et longè copiosiores.* Ovarium *oblongum, glabrum, (nec ut in icone, errore sculptoris, pilosum).* Stylus *sæpiùs sursùm arcuatus, staminibus longior;* stigma *capitatum, conicum.*

This is by far the most beautiful of the Fuchsias that have of late been introduced; resembling F. gracilis in the brilliancy of its flowers, but far surpassing it in the profusion with which they are produced. It grows freely in the open air in a peat border, where, during all the latter months of summer, it forms a small bush, resplendent with purple, green, and crimson.

Our drawing was made at the garden of the Horticultural Society in 1826. The plant had been raised from Chilian seeds, presented to the Society by Mr. Place, in 1824.

If F. gracilis were a less variable plant, we should have hesitated in arranging this under it as a simple variety, for its mode of growth is very different, its foliage is of another character, and its stigma is altogether of a distinct form. But we have seen so many intermediate appearances of this species produced by the same packet of seed, that we are persuaded this has no claim to any higher station than that of variety. With regard to the form of the stigma, we believe it is in these plants of no importance; for in the plant called *F. tenella,* which is another undoubted seedling variety of F. gracilis, the stigma is neither cylindrical, as in the type of the species, nor conical, as in the variety now represented, but capitate, with four obtuse lobes! The F. macrostema of the Flora Peruviana we consider another form of the species; and that name ought perhaps to take precedence of others.

A small, much-branched bush. *Branches* slightly downy. *Leaves* on short stalks, ovate, toothletted, glaucous, when viewed beneath a lens appearing slightly downy. *Flowers* as in the type of the species, but rather smaller, and produced in far greater abundance. *Ovarium* oblong, smooth, (not pilose, as erroneously represented in the figure). *Style* usually arcuate upwards, longer than the stamens; *stigma* capitate, conical.

J. L.

GONOLOBUS grandiflorus.

Large-flowered Gonolobus.

PENTANDRIA *MONOGYNIA.*

Nat. ord. ASCLEPIADEÆ.
GONOLOBUS. Suprà, vol. 3. fol. 252.

G. *grandiflorus;* caule pedunculisque hirtis, foliis cordato-ovatis acuminatis subtùs glaucis, petalis ovato-acuminatis coriaceis. (*R. Br.*) *Rom. et Schultes sp. pl.* 6. 61.

Cynanchum grandiflorum; *Cavanilles, ic. vol.* 1. *p.* 14. *t.* 21. *Willd. sp. pl.* 1. 1254.

Folia *cordato-ovata, acuminata, baseos sinu aperto: lobis rotundatis, utrinque leviter, ut et petioli, pilosa, subtùs pallidiora.* Umbellæ *interpetiolares, pedunculo piloso petiolorum longitudine, involucro obsoleto, hinc monophyllo; pedicelli filiformes, pilosi, floribus longiores.* Calyx *pentaphyllus, patens, foliolis linearibus, acuminatis, hirsutis, corollâ brevioribus.* Corolla *inexplicata subrotundo-ovata, acuminata; aperta rotata, 5-partita, viridilutea, laciniis planis, coriaceis, ovatis, acuminatis, extùs pubescentibus, intùs ad faucem annularem velutinis;* squamæ *quinque, purpureæ, transversæ, petalis oppositæ, intrà faucem, tubum occultantes.* Corona *purpurea, 5 angularis.*

First described by Cavanilles, from specimens raised in the Madrid garden, from seeds collected in the tropical part of South America. The plant from which our drawing was made, is, as we are informed by Mr. Tate, at whose nursery the figure was taken, the produce of Mexico, whence its seed was brought by R. P. Staples, Esq.: we have also seen it in collections received from Trinidad.

Although this is the finest species of its genus, it is by no means handsome when growing alone; but mixed with other creepers, from which it can borrow a better foliage than its own, it becomes a desirable plant. It is a tender stove climber, flowering in September; very easily cultivated in light loam and peat, in a strong damp heat.

Leaves cordate-ovate, acuminate, with the sinus of the base open, and the lobes rounded, slightly pilose on each side, as are the petioles, paler on the lower than the upper surface. *Umbels* between the petioles, with a pilose peduncle the length of the petioles, and an obsolete involucrum, one-leaved on one side; *pedicels* filiform, pilose, longer than the flowers. *Calyx* 5-leaved, spreading, with linear, acuminate, hairy sepals, which are shorter than the corolla. *Corolla* before opening, roundish-ovate, acuminate; when open, rotate, 5-parted, greenish-yellow; the segments flat, coriaceous, ovate, acuminate, externally pubescent, internally velvety about the faux, which has a rim; *scales* 5, purple, transverse, opposite the petals, placed within the faux, overhanging the tube. *Corona* purple, with 5 angles.

J. L.

OXYTROPIS Lamberti.

Mr. Lambert's Oxytropis.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ. *Tribus* Loteæ *Decandolle.*

OXYTROPIS Dec.—— *Calyx* 5-dentatus. *Corollæ* carina in mucronem exsertum summo dorso desinens. *Stamina* diadelpha. *Legumen* biloculare aut semibiloculare, suturâ superiore introflexâ.——Herbæ *foliis imparipinnatis, pedunculis axillaribus radicalibusque, floribus spicatis.* Dec. prodr. 2. 275.

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§. 1. Acaules, *nempè caulibus subnullis, stipulis petiolo adnatis, foliolis more solito conjugatis nec verticillatis.*

O. *Lamberti;* acaulis sericeo-pilosa, foliolis lanceolatis acutis remotiusculis, scapo foliis sublongiore, floribus spicatis capitatisve, bracteis lanceolato-linearibus calyce sericeo sub-brevioribus. *Dec. prodr.* 2. 277.

O. Lamberti. *Pursh. fl. bor. am.* 2. 740. *Nuttall genera,* 2. 98. *Bot. mag.* 2147.

A handsome hardy perennial, native, according to Mr. Nuttall, of the woodless hills of the Missouri, from the river Platte to the mountains. Its pods are stated by the same author to be "smooth, black, and small, subterete, acuminate, and partly bilocular."

We have admitted it as a distinct species upon the authority of the various authors above quoted; but we confess we cannot ascertain the distinction between it and O. grandiflora, especially the deep-blue-flowered variety called *leptoptera* by M. Decandolle. Our Dahurian specimens of that variety, for which we are indebted to the kindness of Dr. Fischer, agree very closely with the annexed figure. They differ chiefly in having a taller scape and longer and broader bracteæ.

Our drawing was made some years since, from specimens communicated by Aylmer Bourke Lambert, Esq.

J. L.

J. Ridgway

TRADESCANTIA virginica; β. *pilosa.*

Hairy Virginian Spiderwort.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Commelineæ.
TRADESCANTIA. *Suprà, vol.* 6. *fol.* 482.

T. *virginica;* erecta, foliis lanceolatis glabris, floribus umbellato-congestis terminalibus. *Willd. sp. pl.* 2. 16. *Hort. Kew.* 2. 204.
α. *glabra;* foliis calycibusque glaberrimis.
T. virginica. *Bot. mag.* 105.
β. *pilosa;* foliis ciliatis, calycibus pilosis.

T. subasperæ *affinis, cui similis foliis ciliatis, calycibusque pilis longis obsitis; differt tamen foliis angustioribus longioribus umbellis laxis calycibusque non villosis.*

A pretty ornament of the flower-border, and quite as hardy as the common Spiderwort, with which there is no doubt that it is often confused. It is, however, not only very distinct, but of systematic importance, inasmuch as it must be considered to represent the type of T. virginica passing off into T. subaspera. With the latter it agrees in its ciliated leaves, and calyxes covered with long hairs; but it differs from it in having longer and narrower leaves, loose, not compact umbels, and in the calyx, although pilose, not being villous.

We have not attempted to arrange the synonyms of writers under the above varieties; indeed we doubt whether it would be practicable; that of Pursh probably belongs to the plant now figured.

Drawn at the Nursery of Mr. Lee, of Hammersmith, in June 1826.

J. L.

1056.

ÆSCULUS carnea.

Flesh-coloured Horse-Chestnut.

HEPTANDRIA *MONOGYNIA.*

Nat. ord. Hippocastaneæ.
ÆSCULUS. *Suprà, vol.* 4. *fol.* 310.

Æ. *carnea;* capsulis echinatis, floribus 5-petalis 7-andris pubescentibus, foliolis 5 oblongis acuminatis serratis.

Æ. carnea. *Hort. angl.*

Arbor *parva, comâ compactâ.* Foliola 5, *oblonga, acuminata, sessilia, argutè serrata.* Calyx *et* corolla *pubescentes.* Petala 5, *carnea, crispa, pubescentia,* 3 *superioribus minoribus, basi luteo maculatis.* Stamina 7; *filamentis basi pubescentibus.*

One of the most beautiful of all our hardy trees; resembling the common Horse-chestnut in general appearance, but being smaller, and bearing a profusion of fine bunches of rich flesh-coloured flowers. Its native country is unknown.

This is very different from the Æsculus carnea figured by Mr. Watson in his Dendrologia Britannica; that species is the Æsculus rubicunda of Decandolle, and is distinguished by its irregularly cut leaves, and tetrapetalous octandrous dark purple flowers.

Our drawing was made in the garden of the Horticultural Society, in June 1826.

J. L.

1057.

NICOTIANA multivalvis.

White Columbia Tobacco.

PENTANDRIA *MONOGYNIA.*

Nat. ord. SOLANEÆ.
NICOTIANA. Suprà, vol. 10. *fol.* 833.

N. *multivalvis;* herbacea viscido-pilosa, foliis lanceolatis inferioribus petiolatis, floribus axillaribus solitariis, calyce multipartito, capsula multiloculari, corollæ laciniis obtusis altè venosis.

Caulis *erectus, ramosus, crassus, carnosus, undique, ut et omnes aliæ partes, glutinosa, pilosa, teterrimè hircum olens.* Folia *carnosa, plana, ovato-lanceolata, glutinosa, superiora subsessilia, inferiora longè petiolata.* Calyx *inflatus, costatus, glandulosus, submembranaceus, multifidus, secundùm gradum capsulæ evolutionis.* Corolla *magna, alba, sæpè livore tincta, infundibularis basi ventricosa, calyce multoties longior, limbo plano, sæpiùs* 6-*fido, laciniis oblongis, obtusis, venis altè impressis.* Stamina *numero laciniarum corollæ æqualia.* Ovarium, (*et capsula*) *maximum, multiloculare, difforme, loculis normalibus sæpiùs in centro, superfluis circacircum inordinatim congestis et conferruminatis, placentis semper axin spectantibus.* Stylus *crassus, rigidus.* Stigma *capitatum.*

We have no doubt that this plant, *Nicotiana nana,* and *N. quadrivalvis,* have all been confounded under the idea of one species by N. American Botanists. They are all cultivated by various tribes of Indians for their tobacco, for which purpose the calyx, which is intolerably fœtid, is selected in preference, the corolla being rejected. The species now distinguished is that which is cultivated by the nations who inhabit the banks of the Columbia, and is the only sort that was met with by Mr. Douglas, by whom seeds of this were sent to the Horticultural Society in 1826.

The resemblance that *N. multivalvis* bears to *N. quadrivalvis* is too obvious to escape observation; in a dried state, indeed, they are scarcely distinguishable without a very careful examination; and yet the differences that exist

between those species are greater than are often found between distinct genera. Without taking into account the very singular nature of the fructification of *N. multivalvis*, it may, when growing, be known by its larger flowers and more hircose smell, and by the longer stalks and more tapering outline of its leaves. The calyx and corolla are influenced by a permanent predisposition to produce a greater number of divisions than the type of Nicotiana; and in the capsule this is increased still further. Independently of the two confluent ovaria of which the normal form of Nicotiana consists, we have in this species an addition to the circumference of an indeterminate number of other ovaria, irregularly arranged round those in the centre, and forming one mass with them. This mode of structure, although leading to a suspicion that it is only an accidental monstrosity, like the well-known multiplication of lobes in the Shaddock, is certainly a permanent characteristic of the species. We have not only found it uniformly prevailing in the whole of a considerable number of plants raised from Mr. Douglas's seeds, but also in all the wild specimens which have been received from him. In fact, it is a multiplication of ovaria, such as may be expected to occur in any genus with a definite number of those organs, and is absolutely analogous to the arrangement of ovaria in Nolana paradoxa. In that instance, such strong doubts were entertained of the accuracy of our statement by one of our friends, a most respectable Botanist, that having mistaken for Nolana paradoxa a different species, in which the regular structure of the genus prevails, he inferred that we had been confounding a casual monster with a legitimate species! We hope that we shall be saved from such an imputation in this case at least.

Our drawing was made in the garden of the Horticultural Society, in September 1826. The species is a hardy handsome annual, but intolerably offensive, on account of its powerful hircose odour.

J. L.

Pub by J. Ridgway 169 Piccadilly. April. 1. 1827.

J. Watts

TRIUMFETTA micropetala.

Small-petalled Triumfetta.

MONADELPHIA *MONOGYNIA.*

Nat. ord. TILIACEÆ.

TRIUMFETTA L.—— *Cal.* 5-sepalus obtusus aut sæpè sub apice apiculatus. *Petala* 5, aut rarius 0. *Stamina* 10-30 libera aut ima basi vix subcoalita. *Ovarium* subrotundum. *Stylus* 1. *Carpella* 4, plus minus arctè coalita in capsulam setis uncinatis echinatam. *Semina* in loculis bina aut solitaria. *Embryo* inversus. *Decand. prodr.* 1. 506.

T. *micropetala;* foliis subrotundo-cordatis trilobis mollibus serratis eglandulosis, racemis terminalibus multifloris, calycibus glabriusculis petalis cuneatis duplò majoribus, ovario triloculari, caule erecto.

Caulis *erectus, teres, pubescens, et pilis stellatis hispidulus.* Folia *subrotundo-cordata, obsoletè triloba, serrata, basi 3-5-nervia, utrinque pilis stellatis pubescentia, superioribus ovato-oblongis indivisis.* Flores *racemo terminali composito disposití, bracteis subulatis-pilosis.* Calyx *5-sepalus, leviter pilosus, sepalis linearibus luteis, apice cucullatis, viridibus, extùs appendiculatis.* Petala *lutea, sepalis duplò breviora, cuneata, apice rhomboidea nunc tridentata, basi extùs pilosiuscula.* Filamenta *transversim rugosa.* Ovarium *pilis uncinatis simplicibus, nec articulatis, echinatum, 3-loculare.* Stylus *filiformis, glaber; stigmate leviter tricuspidato.*

We cannot reconcile this with any of the described species of Triumfetta; but it must be confessed that their characters are in most cases so imperfect that it is no easy task to come to a decision in the genus. Next to the absence of petals, the number of cells in the ovarium forms one of their most important points of difference, and yet in books there is scarcely a species in which that character is introduced. Some are 4-celled, some 3-celled, others 6-celled; and from this circumstance we know that much aid is to be derived. If we had sufficiently attended to this, we should have avoided confounding, in another place, with Jacquin's Triumfetta rhomboidea, which has uniformly a 6-celled ovarium, a Peruvian species with 3 cells only,

which is also found in other parts of South America, and which may henceforth be called *Triumfetta petiolaris*.

The essential characteristics of this are, its minute, cuneate, or 3-toothed petals, which place it upon the extreme limit of the section to which it belongs, and next to the apetalous species; its roundish, cordate, soft, 3-lobed leaves, and 3-locular ovarium, are its other essential features.

Native of the East Indies. Our drawing was made in the garden of Henry Bellenden Ker, Esq., by whom it was cultivated in the stove. It formed a suffrutescent stem, but not having been preserved, it is uncertain whether it is shrubby or herbaceous.

Stem erect, terete, pubescent, and roughish, with stellated hairs. *Leaves* roundish-cordate, obsoletely 3-lobed, serrated, 3-5-nerved at the base, downy, with stellate hairs on each side; the upper leaves ovate-oblong, undivided. *Flowers* arranged in a terminal compound raceme, with subulate hairy bracteæ. *Sepals* 5, linear, pilose, yellow, cucullate at the end, and green, with an appendage externally. *Petals* yellow, only half the length of the sepals, cuneate, frequently 3-toothed, slightly hairy at the base externally. *Filaments* wrinkled across. *Ovarium* with uncinate, not jointed, simple hairs, 3-celled. *Style* filiform, smooth; *stigma* slightly 3-pointed.

J. L.

1059.

EUPHORIA verticillata.

Whorled-flowered Euphoria.

POLYGAMIA *MONŒCIA.*

Nat. ord. Sapindaceæ.

EUPHORIA Juss.—*Cal.* 5-dentatus. *Petala* 5, medio intùs subvillosa reflexa. *Stamina* 6-8. *Ovarium* didymum. *Stylus* 1. *Stigmata* 2. *Carpella* 2, indehiscentia, 1-locularia, intùs pulposa, uno sæpè abortivo, altero superstite sphærico coriaceo. *Semen* 1. *Cotyledones* crassæ, sæpè conferruminatæ.——Arbores; foliis *pinnatis*, fructuum *pulpâ sæpiùs eduli.* Decand. prodr. 1. 611.

E. *verticillata;* foliis simplicibus obovato-lanceolatis.
Scytalia verticillata. *Roxburgh. Hort. Beng.* 29.

Cortex *adultus viridis, novellus cinnamomeus.* Folia *alterna, breviter petiolata, obovato-lanceolata, glaberrima, basi auriculata.* Flores *racemoso-paniculati, albi, rubescentes.* Calyx *albus, 5-phyllus, sepalis inæqualibus, imbricatis, ciliatis, interioribus majoribus cucullatis.* Petala 5, *ovata, reflexa, extrà discum cyathiformem inserta, suprà basin squamula ciliata aucta.* ♂. Stamina 8, *intrà discum inserta, basi monadelpha.* Rudimentum *ovarii filiforme, staminibus brevius.* ♀. Ovarium *didymum, distylum, basi glandulis* 8 *intrà discum suffultum, carnosum, ovulis solitariis horizontalibus.* Stigma *parvum, ovatum, ciliatum.*

Whether this is really a species of Euphoria, it is impossible, in the absence of its fruit, to ascertain; that it is the Scytalia verticillata of Roxburgh, we know from the circumstance that the very plant from which our drawing was taken was brought to England from the Botanic Garden, Calcutta, in 1822, by Mr. John Potts, for the Horticultural Society, in whose Garden, at Chiswick, our drawing was made, in February last.

A tender stove plant, native, according to the Hortus Bengalensis, of the Moluccas. In the Botanic Garden at Calcutta, it forms a shrub, flowering in the rainy season, from June to October, and ripening its fruit in the hot

season, from March to June. With us it grows very slowly, plunged in the bark-bed of a stove, and has not yet been propagated.

Those fine Asiatic fruits, the Litchi, Longan, and Rambutan, are other species of this genus.

The bark of the ripe wood is green, of the young wood cinnamon-colour. *Leaves* alternate, on short stalks, obovate-lanceolate, very smooth, auricled at the base. *Flowers* in panicled racemes, white, with a dash of pink. *Calyx* white, 5-leaved, the sepals being unequal, imbricated, ciliated, the innermost largest, and hooded. *Petals* 5, ovate, reflexed, inserted on the outside of a cyathiform discus, with a squamiform appendage above their base in the inside. ♂. *Stamens* 8, inserted inside the disk, monadelphous at base. The *rudiment* of the ovarium filiform, shorter than the stamens. ♀. *Ovarium* double, with two styles, surrounded at the base, inside the discus, by 8 glands, fleshy, with solitary horizontal ovules. *Stigma* small, ovate, ciliated.

EXPLANATION OF THE DISSECTIONS.

1. A flower seen from above. 2. The calyx seen from above, the petals having been removed. 3. A front view of a petal. 4. A side view of half a petal. 5. The ovarium. 6. A section of one lobe of ditto. 7. The stigma. All more or less magnified.

J. L.

1060

CONVOLVULUS ochraceus.

Benin Convolvulus.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ.
CONVOLVULUS. *Suprà, vol. 2. fol.* 133.

C. *ochraceus;* caule volubili piloso, foliis cordatis integris petiolisque pilosis, pedunculis unifloris pilosis petiolis brevioribus, calyce ovato pubescente tubo multò breviore, corollæ limbo patente subcrenulato, stigmate capitato.

Annua? Caulis *teres, volubilis, debilis, pilosus.* Folia *cordata, sinu aperto, integra, pilosa, petiolorum longitudine.* Pedunculi *uniflori, petiolis multò breviores, apice bibracteolati;* pedicellus *incrassatus, pubescens, pedunculo triplò longior.* Calyx *ovatus, pubescens, tubo corollæ amplo intùs purpureo duplò brevior.* Corolla *ochracea, limbo plano, lobis apiculatis, crenulatis.* Stigma *parvum, capitatum.*

A native of the Gold Coast, where it was found by Mr. James Murray, who accompanied Captain Clapperton's last African expedition as far as Accarah. Our drawing was made in Mr. Tate's Nursery, in August 1826.

Apparently a tender annual. The blossoms are of a bright yellowish orange colour, with a dark purple eye, and are extremely beautiful. The species is very nearly akin to C. obscurus, represented at fol. 239 of this work, from which it differs in being covered with slight hairiness on the leaves, stems, peduncles, and calyx, and in the colour and larger size of the flowers. It would seem from the figure above referred to, that the calyx of C. obscurus has a different figure from that of C. ochraceus; but upon comparing our specimens of the two plants, we find no material difference in that respect; the calyx and peduncle of C. obscurus are quite smooth; those of C. ochraceus are very distinctly pubescent.

Stem round, twining, weak, pilose. *Leaves* cordate, with an open sinus, entire, pilose, the length of the petioles. *Peduncles* one-flowered, much shorter than the petioles, with two little bracteæ at base; *pedicel* thickened, downy, three times as long as the peduncle. *Calyx* ovate, downy, twice as short as the ample tube of the corolla, which is deep purple inside. *Corolla* yellowish orange-coloured, with a flat limb, and crenulate, apiculate lobes. *Stigma* small, capitate.

J. L.

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SIEGESBECKIA Jorullensis.

Jorullo Siegesbeckia.

SYNGENESIA *SUPERFLUA.*

Nat. ord. Compositæ. Sect. Heliantheæ Milleriæ. *Cassini op. phytol.* 2. 205.

SIEGESBECKIA L.—*Involucrum* duplex; exterius pentaphyllum patens, interius polyphyllum campanulatum. *Receptaculum* paleaceum. *Flosculi* disci hermaphroditi tubulosi, radii nonnulli unilaterales ligulati feminei. *Akenia* tetragona calva.——Herbæ *glanduloso-viscosæ.* Folia *opposita, integra.* Flores *terminales et alares lutei.* Kunth. synops. 2. 506.

S. *Jorullensis;* foliis ovato-rhombeis acutis basi valdè angustatis dentatis hirtellis, foliolis involucri exterioribus longissimis. *Kunth. synops.* 2. 506.

Annua. Caules *erecti, subteretes, ramosi, undique pilis glandulosis obsiti.* Folia *ovato-rhombea, vix cordata, pilosa, in petiolo ipsis longiore decurrentia: superioribus sensim angustatis, demùm sessilibus.* Flores *terminales, sæpiùs terni, pedunculis filiformibus valdè glandulosis.* Involucri *foliola exteriora 5, pallidè viridia, lineari-spatulata, radiantia, interioribus purpureis* 3-4-*plò longiora, undique glandulosa.* Flosculi radii 6-7, *lutei, breves, oblongi, tridentati, tubo arcuato piloso, limbi glabri longitudine.* Ovarium *purpureum, obtusè tetragonum, calvum.* Flosculi disci *pauci, lutei, infundibulares, tubo piloso, limbi glabri, erecti, campanulati longitudine;* ovarium *ut radii.* Antheræ *muticæ, appendiculâ ovata planâ coronatæ.* Stylus *basi leviter bulbosus.* Stigma *bifidum, laciniis ovalibus, acutis, intùs sulcatis, extùs pilosis.* Receptaculum *planum, paleaceum, paleis cymbiformibus obtusis, apice glandulosis, quàm ovaria paulò longioribus.*

An annual plant, found by Humboldt and Bonpland on the Mexican Volcano of Jorullo, at the height of about 3000 feet above the level of the sea, flowering in September. With us it is a hardy annual, flowering from June to October.

Our drawing was made in 1826, from plants in the garden of the Horticultural Society, at Chiswick, where they had been raised from seeds brought from Mexico by Charles Mackenzie, Esq.

Sprengel unites this, S. cordifolia, S. triangularis, and S. orientalis, under one species; upon what principle of combination, we confess we do not comprehend.

Stems erect, roundish, branched, densely leafy, covered over with glandular hairs. *Leaves* ovate-rhomboid, scarcely cordate, pilose, tapered into the petiole, which is longer than themselves; the upper ones becoming narrower by degrees, and finally sessile. *Flowers* terminal, often in threes, with filiform, very glandular peduncles. Outer leaflets of the *Involucrum* 5, pale-green, linear-spatulate, radiating, 3 or 4 times as long as the inner, (which are purple), very glandular. *Radiant florets* 6-7, yellow, 3-toothed, with a pilose tube, which is bent inwards. *Florets of the disk* yellow, funnel-shaped, with a campanulate limb. *Ovaria* without pappus. *Receptacle* flat, paleaceous; the paleæ obtusely cymbiform, glandular at the end.

EXPLANATION OF THE DISSECTIONS.

1. A tip of one of the leaflets of the outer involucrum, shewing the nature of the glandular hairs by which it is covered. 2. A floret of the ray, with its accompanying leaflet of the inner involucrum. 3. A floret of the disk, with its palea. 4. The upper and lower ends of the style. 5. An anther separated to shew its figure and its appendage at the top. 6. The outside of the stigma seen before the lobes separate, shewing the hairy external surface.

J. L.

FUCHSIA conica.

Conical-tubed Fuchsia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRARIÆ.
FUCHSIA. *Suprà, vol.* 10. *fol.* 847.

F. *conica;* foliis ternis quaternisque ovatis planis denticulatis glabris, floribus pendulis solitariis, petalis calyci subæqualibus, corollæ tubo conico.

Frutex 2-3-*pedalis, densè foliosus, parcè floridus.* Folia *terna quaternaque, ovata, petiolata, denticulata, glaberrima, atro-viridia, petiolo pubescente, laminâ triplò breviore.* Flores *solitarii, axillares, penduli, pedunculis foliis multò longioribus, filiformibus, levissimè pubescentibus.* Ovarium *ovatum, collo constricto, leviter pubescens.* Calyx *coccineus, glaber, tubo conico, limbi longitudine.* Petala *atro-purpurea, erecta, imbricata, emarginata, limbo paululùm breviora.* Stylus *staminibus multò longior;* stigma *ovatum.*

Native of Chile, whence seeds were sent to Mr. Place, by whom they were presented to the Horticultural Society, in 1824. Our drawing was made in the Chiswick garden, in September 1826.

This fine species must not be confounded with any of the varieties of Fuchsia gracilis, from all which it differs in having broader leaves, a less disposition to produce flowers, and in the figure of the tube of the calyx, which has a conical form, being much broader at the base than the apex, in consequence of which it appears divided from the ovarium by a strong contraction. This is not shewn with sufficient distinctness in our figure.

As hardy as the other species of Chilian Fuchsias, like which it is also propagated without difficulty by cuttings.

A shrub growing two or three feet high, closely covered with leaves, but not producing flowers in much abundance.

Leaves growing three or four together, ovate, stalked, toothletted, quite smooth, dark green, the petiole pubescent, and not more than a third part the length of the lamina. *Flowers* solitary, axillary, pendulous; the peduncles much longer than the leaves, filiform, slightly pubescent. *Calyx* scarlet, smooth, with a conical tube, the length of the limb. *Petals* dark purple, erect, imbricated, emarginate, a little longer than the limb. *Style* much longer than the stamens. *Stigma* ovate.

J. L.

OXALIS carnosa.

Fleshy Wood-Sorrel.

DECANDRIA *PENTAGYNIA.*

Nat. ord. OXALIDEÆ.
OXALIS. *Suprà, vol. 2. fol.* 117.

DIV. Acetosellæ, *acaules aut substipitatæ, foliis petiolatis subtrifoliolatis, petiolis immarginatis, foliolis subtùs non glandulosis, scapis unifloris.* Dec. prodr. 1. 697.

O. *carnosa;* caule carnoso dentato, foliolis obcordato-subrotundis carnosis subtùs pruinosis, scapis glabris 2-plurifloris, sepalis triangularibus.

" O. carnosa, *Molina.*"

Caulis *erectus, carnosus, subramosus,* 3-6-*uncialis, undique foliis vestitus, demùm cute scariosâ obtectus.* Folia *atroviridia, valdè carnosa.* Petioli *teretes, glabri, glaucescentes, basi rosei, cum caulis tuberculis manifestè articulati;* foliola *ternata, subsessilia, obovata, emarginata, valdè carnosa, subtùs pruinosa pallidiora, rubore nullo.* Scapi *subramosi, 2-pluri-flori, foliis paulò elatiores, flore altero pedicello elongato basi bibracteato præcoci, altero basi unibracteato serotino.* Sepala 5, *atroviridia, venosa, triangularia, obtusa, tubo paululùm breviora.* Corolla *lætè lutea, faucis colore intensiore, substriato.* Petala *concava, rotundata, apice obtusa, nunc denticulata.* Stamina 10, *quorum 5 tubo æqualia, stylis paululùm longiora: filamentis dorso denticulatis, 5 stylis breviora: filamentis muticis.* Ovaria *polysperma.*

A curious half-hardy species of Oxalis, native of Chile, whence living plants were brought to the Horticultural Society, in 1825, by Mr. James M'Rae. It may be readily preserved in a cold frame, where it flowers in abundance from April to September. The foliage is an excellent substitute for sorrel.

There is no doubt that this is the O. carnosa of Molina, which is referred to O. magellanica by Professor Sprengel; but the scapes of that species are stated by M. Decandolle to be pilose, which, if true, renders it improbable that Sprengel's reference can be accurate.

The whole plant is singularly fleshy. The stem, when the plant is young, is concealed below the ground, as was the case when the annexed drawing was made; as the plant grows older, the stem elongates upwards, and finally assumes, when destitute of leaves, the form of a divided fleshy toothed branch, the teeth indicating the points whence the leaves fell. *Leaves* dark-green, very fleshy; *petioles* round, smooth, rather glaucous, pink at the base, manifestly articulated with the tubercles of the stem; *leaflets* ternate, subsessile, obovate, emarginate, very fleshy, paler beneath, where they are beautifully frosted, with no appearance of red. *Scapes* somewhat branched, two or more flowered, a little taller than the leaves, one flower being seated on a long stalk, with two bracteolæ at the base, and appearing early, the other having only one bractea at the base, and being much later. *Sepals* 5, dark green, veiny, triangular, obtuse, a little shorter than the tube. *Corolla* bright yellow, with a darker hue at the eye, which is slightly striated. *Petals* concave, rounded, obtuse at apex, sometimes toothletted. *Stamens* 10, of which 5 are as long as the tube, and a little longer than the styles, with their filaments toothed at the back, and 5 shorter than the styles, without denticulations of the filaments.

NOTE.

We omitted to notice, at fol. 1052, the near affinity which exists between the Oxalis tenera of Sprengel, then figured, and the O. lobata of the Botanical Magazine. These two plants are very similar, although obviously different; but as the letter-press that accompanies O. lobata is not sufficiently explanatory of the structure of that plant, we cannot tell how far the resemblance of the species goes beyond external similitude.

J. L.

M. Hart del.

Ridgway

S. Watts sc.

TABERNÆMONTANA coronaria *α*; *flore simplici.*

Single Garland-flowered Tabernæmontana.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Apocyneæ.
TABERNÆMONTANA. *Suprà, vol.* 4. *fol.* 338.

T. *coronaria;* foliis lanceolato-ovatis glabris tenuibus obtusè acuminatis, pedunculis axillaribus erectis 2-3-floris, corollæ limbo plano: laciniis integerrimis.
α. flore simplici.
Apocynum zeylanicum indicum frutescens Nerii flore candidissimo. *Herm. par.* 40.
Nerium divaricatum. *Linn. fl. zeyl.* 109. *Willd. sp. pl.* 1236. *n.* 6. *aliorumque.*
Tabernæmontana divaricata. *R. Brown. Rom. et Schultes,* 4. 427.
Nerium coronarium. *Ait. Kew.* 1. 297. *Jacq. ic. rar.* 1. *t.* 52. *etc.*
Tabernæmontana coronaria. *Willd. enum. hort. Ber.* 1. 275. *Ait. Kew. ed.* 2. 2. *p.* 72. *Lodd. bot. cab.* 406.

? *β. flore pleno.*
Jasminum zeylanicum folio oblongo, flore albo pleno odoratissimo. *Burm. zeyl.* 129. *t.* 59.
Flos manilhanus. *Rumph. amboin.* iv. 87. *t.* 39.
Nerium coronarium. *Bot. mag.* 1865.

Frutex 4-5-*pedalis, ramis divaricatis, cortice cinereo.* Folia *ovato- v. oblongo-lanceolata, tenuia, nitida, glaberrima, obtusa, cum acumine.* Pedunculi *axillares, bi-tri-pluriflori, glabri, stricti, cum floribus foliis breviores.* Calyx *minimus, campanulatus, dentibus rotundatis non foliaceis, imbricatis, marginatis.* Corolla *magna, alba, inodora, hypocrateriformis,* tubo *filiformi viridi versùs basin paululùm ventricoso,* limbo *plano, laciniis falcatis, obtusis, integris, hinc undulatis,* fauce *luteâ, obsoletè annulatâ, nudâ.* Stamina *infrà medium tubi inserta;* antheræ *sessiles, lineares, liberæ, luteæ, parvæ, apiculatæ, circà stigma in conum cohærentes.* Ovarium *simplex, ovatum, truncatum, utrinque sulcatum, sine disco.* Stylus *filiformis, erectus, infrà stigma incrassatus, madidus.* Stigma *bilobum, lobis parvis, erectis.*

The foregoing synonyms seem to have been ascertained to belong to this plant; but we confess that it appears to us extremely doubtful whether what is generally considered

the double state of the species is not essentially different; that being highly fragrant, this wholly destitute of smell.

A tender stove plant, native of the East Indies. Our drawing was made at Mr. Colvill's Nursery, in May 1826. Propagated by cuttings of the ripe wood, planted in peat and sand, and covered by a bell glass.

That this is Roxburgh's Tabernæmontana coronaria, we know from authentic specimens sent from the Botanic Garden, Calcutta. The Nepal plant of the same name, described by Mr. Don, with exserted anthers, an undivided stigma, and downy follicles, must therefore be a distinct species.

A *shrub* growing in the stove to the height of four or five feet, with divaricating branches covered with an ash-coloured bark. *Leaves* ovate or oblong-lanceolate, thin, shining, very smooth, obtuse, but taper-pointed. *Peduncles* axillary, 2, 3, or more-flowered, smooth, erect, together with the flowers shorter than the leaves. *Calyx* very small, campanulate, with rounded, not leafy teeth, overlapping each other, and having a paler margin. *Corolla* large, white, scentless, hypocrateriform, with a filiform green *tube*, which is slightly ventricose towards the base; a flat *limb*, with falcate, obtuse, entire segments, wavy on one side, and a yellow eye, with obsolete veins. *Stamens* inserted below the middle of the tube. *Stigma* 2-lobed.

J. L.

1165.

POLYGONUM emarginatum.

Notch-fruited Buckwheat.

OCTANDRIA *TRIGYNIA.*

Nat. ord. POLYGONEÆ.

POLYGONUM.—Calyx 5- rarò 4-partitus, coloratus. *Stamina* 4-9. *Stylus* bi- aut trifidus. *Stigmata* capitata. *Akenium* calyce tectum.—— Herbæ *erectæ, procumbentes aut volubiles; rariùs suffrutices;* foliis *alternis, basi vaginantibus, vaginæ interpetiolari adnatis;* floribus *axillaribus et terminalibus, sæpiùs spicatis, paniculatis aut corymboso-paniculatis, albidis aut rubris.* Kunth. synops. 1. 466.

P. *emarginatum;* foliis cordato-sagittatis, caule erecto inermi, seminibus apice truncatis emarginatis alis cartilagineis. *Roth. catalecta bot.* 1. 48.

P. emarginatum. *Willd. sp. pl.* 454. *Enum. hort. Ber.* 454. *Don prodr. Nep.* 74.

Caulis *erectus, flexuosus, glaber.* Folia *petiolata, sagittato-cordata, subrepanda, margine scabriuscula: vaginâ membranaceâ, ovatâ; summis sessilibus, amplexicaulibus.* Flores *rosei, racemoso-paniculati.* Calyx *5-partitus.* Stamina 10, *glandulis hypogynis totidem.* Stigmata 3.

A native of China, where it is cultivated for the sake of its grain. It is a pretty, hardy annual, resembling the European Buckwheat in general appearance, but differing in the shape of the grain, and in the figure of the leaves. It is also closely allied to Polygonum tataricum, a species with much smaller flowers, and more decidedly sagittate leaves. P. chinense is another plant which this resembles in many respects; but that species has ovate leaves, scarcely at all cordate, except the upper ones, hispid peduncles, and flowers growing in roundish heads.

This species is also found cultivated at Nitee, in Nepal, on the confines of the Chinese empire.

Our drawing was made many years ago; but the

memoranda relating to it being lost, we do not know to whom this work is indebted for it.

Stem erect, flexuose, smooth. *Leaves* stalked, sagittate-cordate, somewhat repand, roughish at the margin; with an ovate, membranous vagina; the upper leaves sessile and amplexicaul. *Flowers* pink, in racemose panicles. *Calyx* 5-parted. *Stamens* 10, with as many hypogynous glands. *Stigmas* 3.

J. L.

1066.

RHEXIA versicolor.

Changeable-flowered Rhexia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. MELASTOMACEÆ.

RHEXIA L.—*Calyx* tubulosus, basi demùm amplians, ventricosus, apice in collo angustatus: limbo urceolato, 4-fido, persistente. *Petala* 4, ore calycis insidentia, latè obovata. *Stamina* 8; filamenta longa, erecta, compressa, æqualia, in ore calycis intrà petala inserta, inarticulata; *antheræ* lineares, declinatæ, obtusæ, absque rostro, æquales, apice foramine hiantes, infrà dorso nec basi filamenta insidentes, basi non constrictæ. *Ovarium* in ventre calycis, liberum. *Stylus* rectus, teres, staminibus brevior. *Stigma* parvum, subcapitatum, tenuissimè barbatum. *Capsula* globosa, in ventre calycis inclusa, libera, 4-locularis, 4-valvis; valvulis rimâ oblongâ, singulâ in medio loculi hiante. *Placentæ* 4, baccatæ, pedicello brevi, plano, ad axin centralem adnato suffultæ, compressæ, valdè scrobiculatæ, in medio loculi centrales, seminibus creberrimè et imbricatìm tectæ. *Semina* 00, reniformia, punctata, umbilico amplo concavo terminata; *testa* simplex, crassiuscula, crustacea, fragilis; *albumen* nullum. *Embryo* teres, curvatus, lacteus; *cotyledones* breves, semicylindricæ; *radicula* curvata, centripeta, cotyledonibus duplò longior. *Don. Melastom. p.* 22.

R. *versicolor;* undique pilosa, foliis ovato-oblongis serrulatis 5-nerviis subtùs discoloribus, floribus terminalibus solitariis foliis brevioribus, capsulâ ovatâ apice pilosâ.

Caulis *suffruticosus, ramosus, densè pilosus.* Folia *5-nervia, ovato-oblonga, petiolata, serrulata, utrinque pilosa, subtùs sanguinea.* Flores *albi, demùm rubescentes, solitarii, terminales, foliis involucrantibus multò breviores.* Calyx *ovatus, pilosus, limbo 4-partito, laciniis spatulatis apice serratis.* Petala 4, *unguiculata, obtusa, ciliata.* Stamina 8, *sub-æqualia, declinata.* Antheræ *innatæ, lineares, basi truncatæ, apice dehiscentes, æstivatione inflexæ.* Capsula *semisupera, libera, ovata, calyce persistente inclusa, apice pilosa, ad cicatricem styli truncata, membranacea, 4-locularis, placentis spongiosis, axi affixis.* Semina *numerosa, reniformia, tuberculata, testâ crustaceâ fragili, hilo magno excavato.*

This beautiful little plant is a native of St. Catharine's, on the coast of Brazil, where seeds were collected by Mr. James M'Rae, for the Horticultural Society, in 1825. It is a hardy greenhouse plant, during all the summer covered with a profusion of delicate white flowers, changing to pink after having been a short time expanded,

and during the winter retaining its deep green foliage, stained beneath with rich crimson. It is very easily cultivated, and increases freely by cuttings, or by seeds, which are produced in abundance. Our drawing was made in the Horticultural Society's Garden, in September 1826.

With respect to the genus to which it is referable, we think it cannot be otherwise than akin to the herbaceous Melastomaceæ of North America, upon which the genus Rhexia chiefly depends; with these it agrees in having a persistent limb to the calyx, in the form and insertion of its anthers, in the form of the seed, in the texture and degree of cohesion of the capsule and calyx, and, in short, in all those characters which Mr. Don has assigned to Rhexia properly so called.

As to the value of the above-named peculiarities, and of others upon which the genera of Melastomaceæ have by Mr. Don been made to depend, there is undoubtedly some difference of opinion. M. Achille Richard, in the Dictionnaire Classique d'Histoire Naturelle, for 1826, objects to them as insufficient, and as giving rise to new *artificial* divisions in the room of the old ones, that are *natural*. In the opinion of this learned Botanist, the whole order should be reduced to two genera; viz. Melastoma, which is distinguished by its fleshy fruit; and Rhexia, the fruit of which is dry and indehiscent. But we certainly can neither adopt this mode of reasoning, nor avoid expressing our astonishment that M. Richard, who must be fully aware of the extreme inconvenience generally attending such a measure as that he proposes, should have been led in this particular instance to adopt it, especially as the ground assigned for so doing is not for a moment tenable. All genera, and indeed all the divisions of Naturalists, are necessarily artificial; and when one genus is called natural, and another artificial, all that can be meant by such expressions is, that the species of the one are less artificially combined than those of the other: this, we apprehend, is, at the present day, an universally admitted principle, to the proof of which we need not proceed; and, considered in this view, there can be no question that M. Richard's proposition cannot be received. The fact, with respect to Melastomaceæ, as with Pomaceæ, and all similar natural groups of plants, seems to be this,—that as their species offer less distinct modifications of the parts of fructification than those of many other orders, the difficulty of subdividing them into those divisions that Naturalists call genera is very much increased, and when effected, the divisions or genera are obliged to depend upon less obvious differences than we have the power of assigning to those of natural orders in which less uniformity of organisation exists. In Melastomaceæ, we may remark, that one character is to be found of which we suspect that use may hereafter be advantageously made: we allude to that cyathiform termination of the capsule which is so conspicuous in Sonerila, an undoubted Melastomaceous genus, which exists in various states in other genera, and which in Rhexia is wholly absent.

J. L.

1067.

SISYRINCHIUM graminifolium.

Grass-leaved Sisyrinchium.

MONADELPHIA (TRIANDRIA *MONOGYNIA*) *MONANDRIA.*

Nat. ord. Irideæ.

SISYRINCHIUM L.—*Calyx* superus corollaceus 6-partitus; laciniis subæqualibus. *Stamina* 3. *Filamenta* connata. *Stigma* trifidum; laciniis indivisis.——Herbæ *caulescentes.* Caulis *sæpius ramosus, anceps.* Folia *vaginantia.* Flores *spathacei.* Kunth. synops. 1. 315.

S. *graminifolium;* scapo terete, foliis lineari-ensiformibus scabriusculis scapo subæqualibus, spathis exterioribus subfoliaceis: interioribus obtusis marginatis: intimis membranaceis, laciniis perianthii oblongis mucronatis, scapo mono-tri-stachyo, ovario glanduloso.

β. pumilum; scapo monostachyo foliis breviore.

Radix *fasciculato-tuberosa.* Folia *radicalia* 4-6-*uncialia, lineari-ensiformia, debilia, scapo breviora, sub lentè pilis brevibus scabriuscula.* Scapus *erectus, foliis elatior, foliosus, nunc subramosus, foliis supremis spatham foliaceam mentientibus.* Fasciculi florum *sæpius* 3, *subdistantes, spathis ut folia scabriusculis, nunc (rarò) foliaceis, exterioribus ovatis obtusis: interioribus apice rotundatis membranaceo-marginatis; intimis membranaceis numerosis.* Flores *ultrà spathas paululùm exserti, pedicellis filiformibus glabris.* Laciniæ *perianthii subæquales, oblongæ, mucronatæ, luteæ, basi maculâ cordiformi fuscâ notatæ.* Staminum *columna pubescens.* Stigmata *patentia, subulata, simplicia.* Ovarium *glandulosum, oblongum, triloculare, polyspermum, ovulis axi tristichè horizontaliter affixis.*

A native of the country near Conception, in Chile, whence roots were brought to the Horticultural Society, in 1825, by Mr. James M'Rae. Our drawing was made in the Chiswick Garden, where the plant flowers in the stove, in April and May. It would probably grow in a warm border.

This is an evergreen perennial plant, from 6 to 9 inches high, with narrow grassy foliage, which, when carefully examined, is found to be covered with minute hairs. The

scape is erect, taller than the leaves, occasionally divided, and bears, for the most part, 3 fascicles of flowers. The outer *spathes* are occasionally foliaceous, the inner are rounded at the end, and bordered with membrane, and the innermost are quite membranous and transparent. The *flowers* are pale yellow, with a little heart-shaped, brownish spot at the base of each. The *ovarium* is glandular.

Occasionally this plant assumes a much dwarfer habit, not exceeding 3 or 4 inches in height; the leaves become stiffer and recurved, the spathes larger, and the scapes do not bear more than one fascicle of flowers, and are over-topped by the leaves. In this state it is our variety β: we have wild specimens from the neighbourhood of Valparaiso.

Chile abounds in this genus, of which we possess many unpublished species; among them there is one that resembles this in many respects, and which may be confounded with it. We therefore avail ourselves of the present opportunity of noticing and distinguishing it under the name of S. *flexuosum*, with the following character:—

S. *flexuosum;* scapo terete, foliis rigidis lineari-ensiformibus glaberrimis scapo multò brevioribus, spathis exterioribus æqualibus acuminatis: interioribus membranaceis, rachi simplici flexuosâ polystachyâ ovariisque tomentosis.

This is a native of the country about Conception, where it flowers in October. It grows from a foot to a foot and a half in height, without any appearance of branching.

J. L.

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BILLBERGIA iridifolia.

Drooping Billbergia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Bromeliaceæ.

BILLBERGIA Thunb.—*Calyx* superus, 3-partitus, unibracteatus. *Petala* 3, sepalis longiora, in tubo convoluta, basi squamis appendiculata. *Stamina* 6, libera, basibus sepalorum et petalorum inter squamas inserta. *Ovarium* 3-loculare polyspermum: ovulis minutissimis. *Stylus* filiformis. *Stigmata* tria, linearia, convoluta. *Capsula* baccata? *Semina* (ex Martio) nuda.——Herbæ *epiphytæ* (*Americæ æquinoctialis*) foliis *siccis lepidotis.* Flores *sessiles, nunc spicati, nunc paniculati, cum rachi manifestè articulati.*

B. *iridifolia;* foliis lanceolato-ensiformibus undulatis acuminatis subspinosis, spica pendula multiflora, floribus solitariis, bracteis integerrimis coloratis florum longitudine.

Bromelia iridifolia. *Nees et Martius in nov. act. phys. med. Ac. Cæs.-Leop.-Car. nat. cur. vol. xi. p.* 16.

Folia *suprema* 1½ *pedalia, lanceolato-ensiformia, undulata, basibus vaginantibus præsertim spinosa; atro-viridia, infernè purpuracea.* Scapus *terminalis, foliis paulò brevior, corallinus, verosimiliter semper pendulus, bracteis roseis inflatis vestitus.* Flores *spicati, distantes, solitarii, in rachi angulatâ, flexuosâ sessiles, bracteis coccineis integerrimis ejusdem longitudinis inclusi.* Calyx *superus, 3-phyllus, sepalis ovatis, luteo-viridibus, apice cæruleis, planis, membranaceis, corollâ duplò brevioribus.* Petala 3, *linearia, in tubo convoluta, luteo-viridia, apice cærulea, obtusa, revoluta; basi squamis duabus cucullatis fimbriatis, nectariferis.* Stamina 6, *basi sepalorum et petalorum inter squamas inserta.* Filamenta *filiformia.* Antheræ *versatiles, liberæ.* Ovarium *inferum, 3-gonum, glaberrimum, 3-loculare, loculis polyspermis, ovulis minutissimis.*

For this truly noble plant we have to render our acknowledgments to Mrs. Arnold Harrison, by whom specimens and a sketch were most obligingly sent us in March last, from her rich collection at Aighburgh, near Liverpool. The plant had been received from William Harrison, Esq., of Rio Janeiro, where it is found growing on trees. We have

subsequently observed the species in flower among a collection of parasitical plants from Rio Janeiro, presented to the Horticultural Society by Henry Chamberlayne, Esq.

In their native country the seeds of these plants take root upon the branches of trees, or upon stones covered with decomposed vegetable matter, but always in situations where the atmosphere is highly charged with humidity, and where the temperature varies from 70° to 90° of Fahrenheit. Such, therefore, are the conditions to which Epiphytes must be submitted if we would hope to cultivate them successfully in these latitudes. The modes of creating an artificial climate of this description will so readily suggest themselves to the cultivator, that detailed directions for the purpose are quite unnecessary.

It would be difficult to point out a family of plants more interesting from their beauty or singularity than that of Bromeliaceæ, and of which, notwithstanding, the systematic arrangement has been less carefully studied. We long ago suggested the necessity of restoring the abolished genus Ananassa, for the eatable Pine-Apples, and of restricting the idea of Bromelia to the species of which Bromelia Pinguin may be considered the representative. We now venture to propose the adoption of the genus Billbergia of Thunberg for such of the species still included in Bromelia as agree with Ananassa in the presence of nectariferous glands at the base of the petals, and as therefore differ from B. Pinguin and its kindred in that character, and also in their linear convolute stigmas. At the same time, a synopsis of what we consider the essential characters of the genuine genera of the order may not be unacceptable.

I. Ananassa; (*Ananas* Plum.)—*Spica* concreta, carnosa. *Calyx* superus. *Petala* 3, basi squamosa. *Stamina* basi perianthii inserta. *Stylus* filiformis. *Stigmata* 3, recta, carnosa. *Bacca*. *Semina* nuda, subrotunda.

Ananassa, 1. *sativa* Nob. 2. *lucida* Nob. (King-Pine.) 3. *debilis* Nob. (the Waved-leaved Pine.) 4. *bracteata* Nob. (Scarlet-leaved Brazilian Pine.)

II. Bromelia.—*Calyx* superus. *Petala* convoluta, basi nuda. *Stamina* basi perianthii inserta. *Stylus* nanus. *Stigmata* carnosa, abbreviata. *Bacca*. *Semina* nuda (subrotunda?)

B. *Pinguin* Jacq.—*fastuosa* Lindl.—*sylvestris* Swtz. and many others; probably also *B. exudans* of the Botanical Cabinet, tab. 801.

III. Billbergia *Thunb.*—*Calyx* superus. *Petala* convoluta, basi squamosa. *Stamina* basi perianthii inserta. *Stylus* filiformis. *Stigmata* linearia, convoluta. *Capsula* baccata? *Semina* nuda.

1. B. *amœna*, (Bromelia pallida, *suprà*, *fol.* 344. Tillandsia amœna, *Bot. cab.* 76. Billbergia speciosa, *Thunb. plant. Brasil. p.* 30. *c. icone.*) —2. B. *iridifolia.*—3. B. *pyramidalis*, (Bromelia nudicaulis, *suprà*, *fol.* 203. B. pyramidalis, *Bot. mag.* 1732.) — 4. B. *nudicaulis*, (Bromelia nudicaulis, *Exot. Fl.* 143.) — 5. B. *clavata*, (Bromelia melanantha, *suprà*, *fol.* 766.) — 6. B. *zebrina*, (Bromelia zebrina, *Bot. mag.* 2686.)

IV. Æchmea Fl. Per.—*Bracteæ* 3, in cyatho connatæ. *Calyx* superus. *Petala* convoluta, distincta, basi squamosa. *Stamina* basi perianthii inserta. *Stylus* filiformis. *Stigmata* linearia, convoluta. *Capsula* baccata. *Semina* nuda.

Æchmea paniculata Fl. Per.

V. Pourretia Fl. Per.—*Calyx* inferus. *Petala* convoluta, distincta, basi nuda. *Stamina* basi perianthii inserta. *Stylus* filiformis. *Stigmata* linearia, convoluta. *Capsula*. *Semina* alata.

Pourretia lanuginosa Fl. Per. etc.

VI. Pitcairnia L'Hérit.—*Calyx* semisuperus. *Petala* libera, irregularia, basi squamosa. *Stamina* basi perianthii inserta. *Stylus* filiformis. *Stigmata* linearia, convoluta. *Capsula*. *Semina* caudata.

Pitcairnia latifolia, etc.

VII. Guzmannia Fl. Per.—*Calyx* inferus convolutus. *Petala* convoluta, ungue membranaceo, basi nuda. *Stamina* basi perianthii inserta. *Antheræ* connatæ. *Stylus* filiformis. *Stigmata* linearia, convoluta. *Capsula*. *Semina* . . . .

Guzmannia tricolor Fl. Per.

VIII. Bonapartea Fl. Per. (*Acanthospora* Spr.)—*Calyx* inferus, diphyllus, sepalo altero majore bifido. *Petala* 3, convoluta, basi nuda. *Stamina* basi perianthii inserta. *Stylus* filiformis. *Stigmata* linearia, convoluta? *Capsula*. *Semina* caudata.

Bonapartea juncea and *strobilantha* Fl. Per.

IX. Tillandsia.—*Calyx* inferus. *Petala* convoluta, distincta, basi nuda. *Stamina* basi perianthii inserta. *Stylus* filiformis. *Stigmata* recta, abbreviata. *Capsula*. *Semina* papposa.

1. §. Stigmata simplicia.

Tillandsia maculata Fl. Per.; *parviflora* Fl. Per.; *pulchra* Ex. Fl. 154.; ? *bulbosa* Ex. Fl. 173.

2. §. Stigmata apice dilatata.

Tillandsia tenuifolia Jacq.; from which *T. aloifolia* of our friend Professor Hooker is surely not different.

X. Caraguata Pl.—*Calyx* inferus. *Petala* in tubo connata. *Stamina* tubo adnata. *Stylus* filiformis. *Stigmata* obtusa, recta? *Capsula*. *Semina* caudata. (*Char. ex Jacq.*)

Caraguata lingulata. (Tillandsia lingulata *Jacq.*)

XI. †Xerophyta Juss.
XII. Raddia Ach. Rich. (*Campderia* id) } appear to be closely allied to Vellozia, and should possibly be excluded from this order.

J. L.

Pub by J. Ridgway

PITCAIRNIA suaveolens.

Sweet-scented Pitcairnia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. BROMELIACEÆ.

PITCAIRNIA L'Hérit.—*Calyx* semisuperus, tripartitus, basi turbinatus, unibracteatus, sepalis coriaceis, vix convolutis. *Petala* 3, sepalis multò longiora, parallela, sæpius unilateralia, stamina incumbentia, non in tubo convoluta, basi squamosa. *Stamina* 6, libera, alternatim basi sepalorum et petalorum inserta. *Antheræ* innatæ. *Ovarium* triloculare, polyspermum: ovulis minutissimis. *Stylus* filiformis. *Stigmata* 3, linearia, convoluta. *Capsula* acuminata, 3-locularis, trivalvis; valvularum marginibus introflexis seminiferis. *Semina* minuta, utrinque setâ caudata.——Herbæ *terrestres* (*Americæ æquinoctialis*), foliis *radicalibus ensiformibus lepidotis.* Flores *pedunculati, racemosi, v. paniculati.*

P. *suaveolens;* foliis lineari-ensiformibus acuminatis integerrimis glabris, racemis multifloris elongatis, petalis oblongis undulatis galeatis, calycibus rachique pubescentibus, bracteis pedicellis multò longioribus.

Caulis 2-*pedalis, erectus, glaber, foliosus.* Folia *omnia lineari-ensiformia, in apice valdè acuminata, integerrima, lætè-viridia, inferioribus subtùs lepidotis, cæteris glabris.* Racemus *erectus, elongatus, multiflorus, rachi pedicellis calycibusque pubescentibus.* Bracteæ *ovato-lanceolatæ, acuminatissimæ, pedicellis multò longiores.* Flores *albi, suaveolentes.* Calyx *semisuperus, basi turbinatus, sepalis lanceolatis, papyraceis, pallidè viridibus, corolla ad minimum duplò brevioribus.* Petala *oblongo-lanceolata, obtusa, hinc versa, concava, quasi galeata, in stamina incumbentia, non in tubo convoluta, sed parallela, marginibus basi imbricatis, basi squamulam lunulatam inter ipsa et stamina gerentia.* Stamina 6, *in imâ basi petalorum et sepalorum inserta.* Filamenta *filiformia.* Antheræ *lineares, innatæ* (*basi insertæ*). Ovarium *semisuperum, ovatum, trigonum, triloculare, in stylo filiformi acuminatum.* Stigmata 3, *linearia, convoluta.*

We are indebted for this new species to the same lady by whom we were supplied with the subject of the last plate, and whom we so often have to thank for her communications to this work. It was sent from Rio Janeiro, by William Harrison, Esq., and blossomed in the stove, in June 1826.

All the species of Pitcairnia are readily cultivated in almost any soil, in a good stove; but we have observed them thrive most when plunged in the tan-pit, and allowed to root through their pots into the tan.

Differs from *Pitcairnia albiflos* of Mr. Herbert, in being a taller and more robust plant, in having the rachis, pedicels, and calyx downy, and especially in the bracteæ being much longer than the pedicels. It is also sweet-scented, which P. albiflos is not. The flowers of the latter appear, from our wild Brazilian specimens, to assume a corymbose appearance, while those of P. *suaveolens* grow in an elongated raceme.

Stem about two feet high, erect, smooth, leafy. *Leaves* all narrowly sword-shaped, very much tapering to the point, quite entire, bright green, the lower only being mealy beneath, the others quite smooth. *Raceme* long, erect, many-flowered, the rachis, pedicels, and calyx, being pubescent. *Bracteæ* ovate-lanceolate, acuminate, much longer than the pedicels. *Flowers* white, sweet-scented. *Calyx* half-superior, turbinate at base, with lanceolate, papery sepals, of a pale-green colour, and at least twice as short as the corolla. *Petals* oblong-lanceolate, obtuse, twisted to one side, concave, with a kind of galeate appearance, lying over the stamens, not rolled together into a tube, but parallel, with their margins overlapping at the base, and having a small lunulate scale between their base and the stamens.

J. L.

TRIFOLIUM fimbriatum.

Fringed Clover.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ. *Tribus* Loteæ *Decandolle.*

TRIFOLIUM L.—*Calyx* tubulosus persistens eglandulosus 5-fidus, laciniis subulatis. *Carina* alis et vexillo brevior. *Stamina* diadelpha. *Legumen* parvum, vix dehiscens, sæpius ovatum 1-2-spermum, calyce brevius et ab eo tectum, rarius oblongum 3-4-spermum calycem paululùm superans.—— Herbæ. Stipulæ *petiolo adnatæ.* Folia *palmatim 3- aut rarissimè 5-foliolata.* Flores *capitati aut densè spicati, bracteati, purpurei, albi, aut ochroleuci.* Petala *in quibusdam omnia inter se basi coalita.* Decandolle prodr. 2. 189.

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§. *Eutriphyllum.*

Flores capitati; capitula ovata, pedunculata v. sessilia, sæpè bracteata; calyx non inflatus villosus. *Seringe in Dec. prodr.* 2. 192.

T. *fimbriatum;* caulibus prostratis glabris, foliolis ovalibus setaceo-denticulatis glaberrimis, capitulis longè pedunculatis, involucro floribus breviore stipulisque multifidis aristatis, calyce turbinato: laciniis pungentibus tubi corollæ longitudine, seminibus subrotundis atris.

Prostratum, undique glaberrimum. Foliola *rubro-marginata.* Stipulæ *pallidæ; inferiores lineares, magis integræ, aristatæ; superiores dilatatæ, inæqualiter pectinato-fimbriatæ, laciniis atro-viridibus.* Bracteæ *multifidæ, aristatæ, capitulo multò breviores.* Calycis *dentes tubo corollæ æquales, pungentes.* Petala *purpurea, basi connata; vexillo lineari emarginato.* Legumen *cuneatum, dispermum.*

A pretty new hardy perennial species of Clover, discovered in the neighbourhood of the Colombia River, by Mr. David Douglas, by whom seeds were sent to the Horticultural Society in 1826. It flowers in September and October, and seems well adapted for ornamenting rock-work. Our drawing was made in the Chiswick Garden.

The nearest affinity of this species is with *T. involucratum* of Willd., which we conceive to be entirely different

from that of Kunth, and with T. *microcephalum* of Pursh, which belongs to the same section of the genus. Of the latter there are specimens among Mr. Douglas's plants, which differ in nothing from Pursh's description, except in having scarcely any hairs upon either stem or leaves. In the same collection are also two other undescribed species, which are so closely akin to the subject of the present article that a description of the one would be incomplete without some account of the others.

One of these differs from T. *fimbriatum* in having very narrow leaves, the lower stipules entire, the involucrum less deeply multifid, the flowers smaller, the limb of the calyx dilated and coloured, and each of its divisions 3-toothed! This may be called T. *tridentatum*, and thus defined :—

T. *tridentatum* ; caulibus ascendentibus subsimplicibus glabris, foliolis linearibus setaceo-denticulatis acutis, capitulis longè pedunculatis, involucro fimbriato aristato floribus breviore, stipulis superioribus pectinatis, calyce tubuloso : limbo dilatato colorato : laciniis tridentatis aristatis corollâ brevioribus.

The other species, of which mention has been made, possesses little of the fringed or multifid structure in either involucrum or stipulæ ; the leaves are obovate, slightly and irregularly denticulated, and the flowers small, and scarcely longer than the involucrum, which is undivided, toothed, and veiny, and surrounds the flowers like a cup. It may from this circumstance be called T. *cyathiferum*, and its characters will be these :—

T. *cyathiferum* ; caulibus prostratis glabris, foliolis obovatis denticulatis obtusis, capitulis longè pedunculatis, involucro cyathiformi truncato venoso dentato florum longitudine, stipulis ovatis abbreviatis, calycibus membranaceis : laciniis setaceis 3-5-partitis corollæ longitudine.

T. *involucratum* of Willdenow is extremely similar to T. *fimbriatum*, from which it is distinguished by its simple stems, erect habit, smaller flowers, and funnel-shaped, inflated calyxes, with ovate, aristate teeth. Such, at least, is the structure of our specimens, which were raised in the Botanic Garden, Cambridge, in 1805, from seed sent from Berlin, and which we therefore presume to be authentic.

J. L.

1071

Wm. Withers del.

OPHRYS fusca.

Dull-purple Ophrys.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Tribus* Ophrydeæ.
OPHRYS. *Suprà, vol.* 3. *fol.* 205.

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§. *Sepala interiora glabra.*

O. *fusca;* foliis oblongo-lanceolatis suberectis obtusis: caulinis acutioribus, labello villoso trilobo; lobis lateralibus oblongis obtusis deflexis; intermedio retuso emarginato mutico; disci macula transversa flexuosa lævigata, sepalis interioribus obtusis glabris superiore duplò breviore.

" Ophrys insectifera ξ. *Sp. pl.* 1343."

" Orchis myodes fusca lusitanica. *Breyn. cent.* 41."

O. fusca. *Link. in Schrad. diar.* 1799. 2. 324.

O. *fusca;* caule folioso, labello villoso trilobo, lobis lateralibus oblongis obtusis, medio oblongo emarginato, petalis patentibus lanceolatis obtusiusculis, binis interioribus parùm brevioribus. *Willd. sp. pl.* 4. 69.

Folia *glauca, subtrinervia, obtusa, caulinis angustioribus, acutioribus.* Bracteæ *oblongæ, concavæ, floribus breviores.* Sepala *herbacea, exterioribus lateralibus ovato-oblongis, obtusis, labelli longitudine, supremo oblongo, fornicato, breviore, lateralibus interioribus hoc duplò brevioribus, obtusis, glabris.* Labellum *oblongum, atro-purpureum, anticè hirsutum, posticè glabrum, lobis lateralibus obtusis deflexis, intermedio longiore, emarginato; disci macula transversa, cærulea, flexuosa, lævigata.*

Roots of this plant were collected upon the rock of Gibraltar, by Colonel Chapman, and sent to William Atkinson, Esq., of Grove End, St. John's Wood, in whose green-house our drawing was made in February last. It was cultivated in a pot, in common light garden mould, in which it grew luxuriantly. Most of the European Orchideæ, however cold the countries may be in which they grow naturally, seem in the garden to prefer as much protection from weather as is afforded by a good frame or cool green-house.

It is extremely difficult to distinguish the species of this genus, which are probably more numerous than is even now supposed: we hope to be able, in time, to make this work a vehicle for conveying to the public accurate ideas respecting the greater part of them.

Leaves glaucous, somewhat three-nerved, obtuse, those of the stem narrower, and more acute. *Bracteæ* oblong, concave, shorter than the flowers. *Sepals* green, the outer lateral ones ovate-oblong, obtuse, as long as the labellum; the uppermost oblong, arched, and shorter; the inner ones twice as short as the latter, obtuse, and smooth. *Labellum* oblong, dark-purple, hairy in front, smooth behind; the lateral lobes obtuse deflexed, the middle one longer and emarginate; the spot of the disc transverse, light-blue, wavy, and polished.

J. L.

1172

PROSTANTHERA violacea.

Violet Prostanthera.

DIDYNAMIA *GYMNOSPERMIA.*

Nat. ord. LABIATÆ.
PROSTANTHERA. *Suprà, vol. 2. fol.* 143.

P. *violacea;* foliis subrotundis crenatis glandulosis utrinque ramisque pubescentibus, racemis paucifloris, calycibus pubescentibus: labio inferiore duplò longiore angustiore. *Brown prodr.* 1. 509.

Fruticulus *ramosus, erectus.* Rami *teretes, pubescentes, scabri.* Folia *parva, opposita, petiolata, pilis scabra, subrotundo-ovata, crenis utrinque duâbus tribusve, subtùs glandulis majusculis pellucidis sessilibus irrorata.* Racemi *terminales, 5-7-flori.* Calyx *glandulosus, pilosus, labio superiore fornicato, truncato, purpureo, inferiore ovato, herbaceo, longiore.* Corolla *purpurea, pilosa, fauce campanulato, atriore, calyce paulò longiore.*

A pretty greenhouse plant, native of the vicinity of Port Jackson, in New Holland. It flowers in April. Our drawing was made at Mr. Mackay's Nursery, in 1826.

A little branched, erect, half-shrubby bush. *Branches* round, pubescent, rough to the touch. *Leaves* small, opposite, petiolate, rough with hairs, roundish-ovate, with two or three crenatures on each side, covered beneath with rather large sessile pellucid glands. *Racemes* terminal, 5-7-flowered. *Calyx* glandular, hairy, the upper lip arched, truncate, and purple, the lower ovate, green, and longer. *Corolla* purple, pilose, with a campanulate, darker-coloured throat, a little longer than the calyx.

J. L.

OXALIS fulgida.

Crimson Oxalis.

DECANDRIA *PENTAGYNIA.*

Nat. ord. OXALIDEÆ.
OXALIS. Suprà, vol. 2. fol. 117.

§. Sessilifoliæ, *caulibus basi bulbosis elongatis sparsè foliosis, foliis sessilibus 3-foliolatis villosis non glanduliferis, pedunculis axillaribus unifloris.* Decand. prodr. 1. 693.

O. *fulgida;* caule brevi decumbente subramoso folioso, foliolis linearibus acutis, pedunculis folia multò superantibus, bracteolis calyci approximatis, stylis longissimis.

We do not know where the drawing of this pretty species was made; it having lain in our portfolio many years, and the memoranda relating to it having been lost. It differs from O. *rosacea* and *rubella* in the great length of its styles, in its dwarfish habit, and in the narrowness of its leaves.

Undoubtedly a native of the Cape of Good Hope, where the various species class with the greatest pests of the cultivator, springing up and choking his crops as malignant weeds. The leaves of all the kinds are a good substitute for sorrel.

This may possibly be the female of Oxalis rubella; but till it shall have been certainly proved that there are males and females of this genus, differing in the respective length of their styles, as for example, Oxalis sanguinea and laburnifolia, and O. macrostylis and tubiflora of Jacquin, it is necessary to record this as a distinct species.

J. L.

J. L. del. Pub by J. Ridgway 169 Piccadilly July 1. 1827. J. Watts sc.

MORÆA catenulata.

Chain-dotted Moræa.

TRIANDRIA *MONOGYNIA.*

Nat. ord. IRIDEÆ.
MORÆA. *Suprà, vol.* 11. *fol.* 949.

M. *catenulata;* foliis distichis ensiformibus perennantibus tortis scapi subramosi squamosi longitudine, flore terminali subsolitario: sepalis patentibus sub-imberbibus, exterioribus duplò latioribus basin versus utrinque verrucosis.

Folia *atroviridia, glauca, disticha, ensiformia, striata, spiraliter torta, circa* 15 *uncias longa, et unam lata, scapi longitudine.* Scapus *ramosus, compressus, foliosus, multiflorus.* Flores *albi, pallidè cærulescentes.* Ovarium *non squamis obtectum, cylindricum, duodecim sulcis.* Sepala *patentia, subæqualia, lanceolata, vix unguiculata, post anthesin involuta; exterioribus latioribus supernè carinatis, carinâ pubescente, apice maculâ rhomboideâ luteâ notatâ, verrucarum lineâ lutearum ad utrumque latus; interioribus ungue canaliculatâ, nudâ, immaculatâ.* Stamina *stigmatibus opposita, atque ab iis obumbrata.* Stigmata *cærulea, dorso pulcherrimè venosa, colore medio intensiore, erecta, concava, biloba, sepalis exterioribus opposita.*

Nearly akin to M. iridioides, from which it is distinguished by the almost total absence of hairs from the outer segments of the corolla, their place being supplied by two rows of little papillæ, or warts.

Our drawing was made in the Garden of the Horticultural Society, from a plant received by Robert Barclay, Esquire, from the Mauritius, and by that gentleman presented to the collection. A stove-plant, flowering in May.

Leaves dark green, glaucous, distichous, sword-shaped, erect, spirally twisted, about 15 inches long, and one broad, the length of the scape. *Scape* branched, compressed, leafy, many-flowered. *Flowers* white, with a slight tinge of blue. *Ovarium* not covered by squamæ,

cylindrical, with 12 furrows. *Sepals* spreading, nearly equal, lanceolate, scarcely unguiculate, after flowering rolled inwards, the *outer* broadest, keeled above, the keel being downy, and terminated by a large yellow rhomboid spot, and having a row of little yellow warts on each side; the *inner* with a channelled, naked, unspotted unguis. *Stamens* opposite the stigmas, and overshadowed by them. *Stigmas* blue, beautifully veiny at back, the colour in the middle deepest, erect, concave, 2-lobed, opposite the outer sepals.

J. L.

M. Hart. del. Pub. by J. Ridgway 169 Piccadilly. S. Watts sc.

ACACIA subcærulea.

Blue-barked Acacia.

POLYGAMIA *MONŒCIA.*

Nat. ord. Leguminosæ. Tribus *Mimoseæ* R. Brown.
ACACIA. *Suprà, vol. 2. fol.* 98.

Sect. I. Foliis deformatis, nempè: foliolis sæpiùs præsertim in plantâ adultâ abortivis, petiolis dilatatis filiformibus in *Phyllodia* nempè mutatis. Phyllodineæ.

§. *Capitato-racemosæ*, floribus nempè in capitula globosa collectis, capitulis secus pedunculum axillarem racemosis. *Stipulæ* omnium subnullæ aut inermes. *Decand. prodr.* 2. 451.

A. *subcærulea*; phyllodiis angustè oblongis glaucis cuspidatis, apice et hinc supra basin uniglandulosis, floribus 4-fidis, racemis subcorymbosis, caule alato.

Caulis *alatus, valdè glaucus.* Phyllodia *vix falcata, reticulata, cuspide apicis uncinato; glandulâ unâ ad apicem ad latus cuspidis, alterâ paulò supra basin marginis superioris.*

Said to be a native of the tropical part of New Holland. Our drawing was made in the Conservatory of the Comtesse de Vandes, in June 1826.

A handsome species, remarkable for the fine copious blue bloom with which it is covered. The *stem* is winged, and nearly as glaucous as the twigs of Salix violacea. The *Phyllodia*, or leaves, as they are more frequently but inaccurately called, are nearly straight, but rarely indicating any disposition to become falcate, with reticulating veins, and at the point terminated by a hooked cuspis. At the apex, by the side of this cuspis, lies a small concave gland; and there is another gland just above the base of that margin of the phyllodium which points upwards. The racemes of little heads are somewhat corymbose. The flowers are 4-fid.

The immediate affinity of this plant is with the *A. amœna* of Wendland.

J. L.

1176

CONVOLVULUS scrobiculatus.

Pitted Convolvulus.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ.
CONVOLVULUS. *Suprà, vol.* 2. *fol.* 133.

C. *scrobiculatus;* foliis scrobiculatis glabris cordatis trilobis, lobis lateralibus obliquis; intermedio angustiore producto acuminato, pedunculis subbifloris, calycis glabri laciniis acuminatis tubo multò brevioribus.

Volubilis, caule filiformi, terete, glabro. Folia *longè petiolata, glabra, foveis majusculis plurimis altè depressis scrobiculata, cordata, triloba; lobis lateralibus latis, acuminatis, quasi dimidiatis, intermedio angustiore, producto, acuminato.* Pedunculi *subbiflori, petiolis dimidio breviores, apice bi-tribracteolati.* Calyx *pentaphyllus, inæqualis, glaber, sepalis exterioribus minoribus, apice subulatis, interioribus oblongis, cuspidatis.* Corolla *pallidè cærulea, calyce multò longior, tubo campanulato, quàm limbus longiore.* Stigma *bilobum, capitatum.*

An annual, supposed to be a native of America, remarkable for the deep pits of its leaves, which, however, disappear entirely in the dried specimen. Our drawing was made at Mr. Colvill's Nursery in March 1826.

A twiner, with a filiform, round, smooth stem. *Leaves* on long stalks, smooth, impressed with numerous rather large pits, cordate, three-lobed; the lateral lobes being broad, acuminate, and resembling the halves of a larger lobe; the middle one being longer, narrower, and acuminate. *Peduncles* about 2-flowered, half the length of the petioles, with two or three small bracteæ at the apex. *Calyx* 5-leaved, unequal, smooth, the outer sepals smaller, and subulate at the end, the inner oblong and cuspidate. *Corolla* pale blue, much longer than the calyx, with a campanulate tube, which is longer than the limb. *Stigma* 2-lobed, capitate.

J. L.

M. Hart del.

URVILLÆA ferruginea.

Brown-haired Urvillæa.

OCTANDRIA *TRIGYNIA.*

Nat. ord. Sapindaceæ.

URVILLÆA Kunth.—*Cal.* 5-sepalus persistens; sepalis 2 exterioribus minoribus. *Petala* 4 unguiculata, 2 magis distantia. *Stamina* 8, filamentis liberis. *Ovarium* substipitatum, 3-loculare, ovulis solitariis ascendentibus. *Glandulæ* 2, maculæformes ad basin stipitis. *Capsula* membranacea 3-alata carpellis 3 samaroideis axi adnatis constans.——Frutices *sarmentosi,* foliis *ternatis,* racemis *basi cirrhosis axillaribus spicæformibus,* floribus *albidis.* Decand. prodr. 1. 602.

U. *ferruginea;* ramis triquetris: angulis rufo-villosis, foliolis cordatis dentatis sublobatis villosis, fructibus pubescentibus.

Frutex *sarmentosus, 20-pedalis, pilis omnibus ferrugineis.* Rami *triquetri, angulis villosissimis, lateribus glabris.* Folia *ternata, molliter villosa, petiolis tomentosis; foliolis cordatis, grossè et inæqualiter dentatis, sublobatis, dentibus sæpius apiculatis.* Racemi *extrà-axillares penduli, pedicello infimo sterili, cirrhoso, fructiferi elongati 6-9 uncias longi.* Flores *albi.* Fructus *magni, ovati, retusi, 3-alati, pubescentes, breviter stipitati.*

A native of Brazil, whence seeds were sent to the Horticultural Society, by the late Mr. Forbes, in 1823. Our drawing was made in the Chiswick Garden, in May 1826.

A remarkable stove-plant, twining and clinging by means of the lowest pedicels of its racemes, which are sterile and converted into tendrils, to the length of 20 feet, or more. The flowers are inconspicuous; but the 3-cornered stems, the angles of which are densely protected by long brown hairs, and the ferruginous aspect of the foliage, render this deserving of a place in every good collection in which twining plants are cultivated.

From fine Brazilian specimens in fruit, for which we are indebted to the late M. Manneville, we learn that the

racemes of capsules are from 6 to 9 inches in length, and produced in such profusion as nearly to conceal the foliage. They have not yet been seen on living plants in this country.

The *leaves* are ternate, softly villous, with downy petioles; the *leaflets* are cordate, coarsely and unequally toothed, and somewhat lobed; the teeth being generally apiculate. The *racemes* are pendulous, inserted on one side of the axillæ. The *flowers* are white; the *fruit* large, ovate, retuse, pubescent, and shortly stipitate.

J. L.

CAMELLIA reticulata.

Captain Rawes's Camellia.

MONADELPHIA *MONOGYNIA.*

Nat. ord. CAMELLIEÆ.
CAMELLIA. *Suprà, vol.* 1. *fol.* 12.

C. *reticulata;* foliis oblongis acuminatis reticulatis planis, calyce pentaphyllo colorato, ovario sericeo.

Statura *Camelliæ japonicæ.* Folia *rigida, oblonga, utrinque acuminata, serrata, plana, venis altè impressis reticulata, non lucida.* Flores *maximi, amœnè purpurei, Pæoniæ cujusdam facie.* Calyx *imbricatus, pentaphyllus, magis minusve purpureo coloratus.* Petala 17-18, *subrepanda, sæpius integerrima, undulata, laxa.* Stamina *petalis multò breviora, basi serie multiplici irregulariter monadelpha, interioribus subliberis; sæpè in phalangibus pluribus, petalis interioribus oppositis, dividuntur.* Ovarium *subrotundum, sericeum, 4-loculare, ovulis pluribus distichis.* Stylus *quadrifidus, glaber.* Stigmata *simplicia.*—Obs. *stylus nunc bi-trifidus, et ovarium bi-triloculare.*

This splendid new species of Camellia has been in this country several years, but it did not produce its flowers till the spring of 1826, when it blossomed in the Conservatory of Thomas Carey Palmer, Esquire, at Bromley. To this gentleman it had been brought from China, by Captain Rawes, in compliment to whom it has received its English name. Our drawing was made from plants in the possession of the Horticultural Society, by whom they were imported in the Lowther Castle, East Indiaman, in 1824, in the care of Mr. John Damper Parks.

We conceive there can be no doubt of this being specifically distinct from C. japonica, from which it is distinguished by its rigid, flat, strongly reticulated leaves, and also by its silky ovàrium. The flowers have also a different aspect; the petals are much undulated, and irregularly

and loosely arranged, with none of the compactness and regularity for which the C. japonica is so much admired.

The genuine species of this genus are now three; viz. C. japonica, C. reticulata, and the plant called in the gardens the double Sasanqua, and figured in this work at fol. 547. The following brief characters will distinguish these species from each other:—

C. japonica; *calyce 5-phyllo, ovario glabro.*
C. reticulata; *calyce 5-phyllo colorato, ovario sericeo.*
C. maliflora; *calyce polyphyllo, ovario glabro.* (Camellia Sasanqua flore pleno. *Suprà, vol. 7. fol. 547.*)

The *C. reticulata* has the habit of C. japonica. The *leaves* are rigid, oblong, acuminate at each end, serrated, flat, not shining, and reticulated with deeply sunken veins. *Flowers* very large, bright clear purple, with the appearance of a Pæony. *Calyx* imbricated, 5-leaved, more or less stained with purple. *Petals* 17-18, somewhat repand, wavy, generally entire, loosely arranged. *Stamens* much shorter than the petals, at the base irregularly monadelphous in several rows, the inner ones rather separate from the others; they are often divided into several bundles, which are placed opposite the inner petals. *Ovarium* roundish, silky, 4-celled, with several distichous ovules. *Style* 4-fid, smooth. *Stigmata* simple. The style is occasionally 2 or 3-fid, and the ovarium 2 or 3-celled.

We avail ourselves of a vacant page to say a word or two upon the subject of species and varieties, to which we are led not so much by the plant now before us, as by a consideration of the numerous doubtful species that necessarily come under our notice in conducting a work like the present, in which garden-plants alone are introduced. It appears to us, that the most perfect definition of a species that can be offered, is that which determines all plants to be of the same species which are capable, by mutual impregnation, of producing a fertile progeny: but it must be obvious, that however perfect this definition may be in theory, it is at present wholly inapplicable to practice, except in a few cases. Our knowledge of the mutual relation of plants is still so extremely incomplete, and the experience of cultivators has hitherto proved so little, that a definition of the nature of that just mentioned is useless for the general purposes of scientific arrangement.

For the present, then, and possibly for ages to come, the Botanist must depend upon other principles in his distinction of plants into species: he must apply such experience as he may be able to derive from those species with the variations of which he is certainly acquainted, to those of which he can have no certain knowledge, except by way of inference; and in the total absence of all demonstrative evidence, he must trust to what may be called the evidence of induction. It is obvious that this kind of evidence is vague in the greatest possible degree; that it is unsatisfactory, and incapable of either direct or circumstantial proof; and that, in truth, its value will be estimated very differently by different persons. In practice it leads to two opposite methods of arrangement; firstly, to combining all plants having a particular degree of relationship, upon the assumption, that if certain plants differing in a particular manner are known to be one natural species, therefore all plants with the same kind of differences are also of one species; secondly, to distinguishing plants by very slight differences, upon the ground, that till we really know something positive respecting them, it is more conducive to the ends of science to distinguish than to combine, and perhaps confound. To us, both these plans are objectionable. We would neither combine too strictly upon uncertain evidence, neither would we distinguish too minutely; but whenever we possessed information, the accuracy of which could not be doubted, we would then strictly circumscribe our species within the limits of the definition previously referred to. For example, there is no question as to the naturally specific identity of all British roses, except R. canina and R. arvensis; of nearly all the Amaryllises comprehended by Mr. Herbert under the name of Hippeastrum; of the greater number of Crinums; and of most of the modern species of Aconitum and Pelargonium: but there does not yet exist any evidence equally satisfactory of the identity of the supposed species of Æsculus, Ribes, Pyrus, Prunus, Cratægus, or Ulmus; or, indeed, of the greater part of the most remarkable plants domesticated in our gardens. In this uncertainty, we would proceed with moderation; on the one hand distinguishing, from want of information, what our more accurately informed successors may combine; and on the other hand combining such plants as our predecessors, from the same want of sufficient experience, have distinguished.

J. L.

1079

PSIDIUM pyriferum.

Pear-fruited Guava.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. MYRTACEÆ.

PSIDIUM L.—*Cal.* 5-partitus. *Petala* 5. *Stamina* per totam tubi calycis parietem inordinatim inserta. *Ovarium* triloculare; loculis placenta septiformi ad marginem fissa utrinque reflexa bipartitis. *Ovula* plurima horizontalia, margini placentæ inserta. *Stigma* capitatum. *Bacca* calyce coronata polysperma. *Testa* ossea. *Embryo* hippocrepicus: cotyledonibus quàm radicula multoties brevioribus.——Arbores (*utriusque Indiæ, præsertim intra Tropicos*). Flores *axillares.* Fructus *magni edules.* Lindley coll. bot. fol. 16.

P. *pyriferum;* caule quadrangulo. *Hort. cliff.* 148.
Guaiavus domestica. *Rumph. amboin.* 1. *t.* 47.
P. pyriferum. *Linn. sp. pl.; atque omnium hodiernorum.*

Of all the fruit-bearing trees of tropical countries, the Guava most readily submits to the arts of the gardener. There are four eatable species in our hot-houses, namely, P. *pyriferum, pomiferum, polycarpum,* and *Cattleianum;* all of which repay the care of the cultivator with plentiful crops of fruit.

Like the Apple and Pear of Northern nations, the Guava produces many varieties, differing in the form and quality of their fruit. That now figured is distinct from any previously published, being remarkable for the small size, round figure, and smooth surface of its fruit, which also possesses an unusual proportion of acid. Most commonly the fruit is larger, more oblong, and has an uneven coat, like that of an orange.

This species, however, is not that which we should recommend for cultivation; the best is the purple Guava,

or Psidium Cattleianum; and next in excellence to that is the P. polycarpum; both which possess a very agreeable flavour, and bear in great profusion.

To taste the Guava in perfection, it should be gathered early in the morning, and a little before it is perfectly mature; it then possesses a sufficient proportion of acid to correct the terebinthinous flavour which at a later period predominates too much. Guava jelly is well known; and the fresh fruit, the small stony seeds having been separated, makes excellent tarts.

A stove-plant, flowering from May to July, and fruiting from July to November. It is propagated with great facility by cuttings, and will grow in any kind of soil which is not too rich.

For the opportunity of making our drawing we are indebted to Mrs. Marryat, of Wimbledon House, by whom ripe fruit was communicated in November last.

J. L.

STACHYS grandidentata.

Large-toothed Stachys.

DIDYNAMIA *GYMNOSPERMIA.*

Nat. ord. LABIATÆ.

STACHYS Linn.—*Calyx* quinquefidus æqualis. *Corolla* bilabiata: labio superiore fornicato emarginato; inferiore trifido, laciniis lateralibus reflexis, intermedia majore emarginata. *Stamina* 4, didynama, post deflorationem ad latus utrinque reflexa.——Herbæ *aut rarius* frutices spinosi. Folia *opposita, integra, sæpius cordata.* Flores *sæpissimè verticillato-spicati.* Corollæ *violaceæ, purpureæ, coccineæ, flavidæ, et albæ.* Kunth. synops. 2. 85.

S. *grandidentata;* caule ascendente hispido, foliis ovato-oblongis grossè dentatis sublucidis hirsutis: summis sessilibus, verticillis subsexfloris, galea subintegra.

Caulis *ascendens, ramosus, tetragonus, hispidus.* Folia *ovato-oblonga, obtusa, grossè dentata, sublucida, utrinque hirsuta, inferioribus petiolatis, summis sessilibus.* Flores *variegati, verticillis sexfloris distantibus dispositi, foliis floralibus subæquales.* Calyces *villosi, pungentes.* Galea *pilosa;* lacinia *labii inferioris* intermedia *subrotunda.*

A native of Chile, where it was found in flower, near Valparaiso, in February 1825, by Mr. James M'Rae, by whom seeds were transmitted to the Horticultural Society, in whose Garden, at Chiswick, our drawing was made in April of the present year. Probably a perennial; but enough is not yet known of its habits to enable us to ascertain that fact with certainty. It has, at present, been cultivated in a frame; but may be expected to thrive if planted in a warm border, and treated as a hardy herbaceous plant.

Stem ascending, branched, 4-cornered, hispid. *Leaves* ovate-oblong, obtuse, coarsely toothed, sublucid, hairy on both sides; the lower ones stalked, the upper sessile.

Flowers variegated, arranged in 6-flowered distant whorls, about as long as the floral leaves. *Calyxes* villous, pungent. *Galea* hairy; the middle segment of the lower lip nearly round.

We take advantage of the present occasion to remark, that although no species of Stachys has been before described as a native of Chile, yet that there are at least five of the genus in that country. Of these, one of the most remarkable, and which is now growing in the Horticultural Society's Garden, is the following :—

S. *albicaulis;* caule erecto lanato, foliis oblongis dentatis arachnoideis subtus petiolisque lanatis, rachi pubescente, bracteis integerrimis calycibus galeâque glanduloso-hirsutis.

This was found by Mr. M'Rae, near the baths of Colina. It is readily known by its woolly stem and leaves, and by its pubescent, glandular rachis, and calyxes, the green colour of which contrasts strongly with the whiteness of the other parts of the plant.

J. L.

1081

169 Piccadilly Aug. 1. 1827.

ANANASSA bracteata.

Scarlet-leaved Brazilian Pine.

HEXANDRIA *MONOGYNIA.*

Nat. ord. BROMELIACEÆ.

ANANASSA. (Anassa *Rumph.* Ananas *Tourn.* Bromeliæ pars *Linn.*) —*Calyx* superus, 3-phyllus, carnosus. *Petala* 3, lingulata, basi squamosa; squamis geminis tubulosis fimbriatis. *Stamina* 6, disco epigyno inserta; tria petalis opposita inter squamas retenta. *Antheræ* lineares adnatæ. *Stylus* filiformis, glaber. *Stigmata* 3, fimbriata, non convoluta. *Ovaria* infera, conferruminata, carnosa, unibracteata, trilocularia, loculis inanibus apice placentiferis polyspermis. *Fructus* carnosus, baccatus, ex ovariis bracteisque concretis. *Semina* nuda subrotunda.——Plantæ *simplices, perennes,* (Americæ æquinoctialis). Folia *rigida, spinoso-serrata, furfuracea, rarò inermia glabra.* Spica *terminalis, concreta, comosa.* Fructus *carnosi, sapidi.*

A. *bracteata;* foliis spinoso-serratis, bracteis foliaceis coloratis.
Nana sive Ananas. *Marcgraaf hist. pl. lib.* 1. *cap.* 16. exclus. ic.

Folia *atro-viridia, laxiuscula, glabra, subtùs furfuracea, spinis distantibus, validis, incurvis, æqualibus, coloratis; juniora luteo-viridia, rubro marginata. Folia superiora et bracteæ floris lætissimè carmosini, his longissimis patentibus.* Fructus *mediæ magnitudinis, immaturus pallidè viridis, maturus luteus, bracteis longis persistentibus rubescentibus vestitus.*

For this superb plant the public is indebted to Robert Barclay, Esq., by whom it was procured from Lisbon, in the spring of 1820. Mr. Barclay received it from Don Joachim de Paes, who introduced it into Portugal from the Brazils.

This is undoubtedly the plant described by Marcgraaf as the Nana or Ananas of Brazil; but his figure, borrowed from Piso, represents a common Pine-Apple.

The great merit of the species consists in the clear deep crimson bracteæ of the flowering-spike, which retain

their colour, although less brilliant, in the ripe fruit; the latter is, however, so good, that no collection of Pines should be without the species.

Our drawing was made in March 1827, in the Pine-Stove of the Horticultural Society, to whom the plant had been presented by Mr. Barclay.

Leaves dark green, rather lax, smooth, mealy beneath, with strong, regular, incurved spines, which have a slight tinge of purple; the younger yellowish-green, edged with pink. The upper leaves and bracteæ of the flower bright crimson; the latter being very long and persistent. *Fruit* middle-sized, when unripe pale green, when ripe yellow, clothed with long persistent red bracteæ.

1082

COLLINSIA parviflora.

Small-flowered Collinsia.

DIDYNAMIA *GYMNOSPERMIA.*

Nat. ord. SCROPHULARINEÆ.

COLLINSIA Nutt. — *Cal.* campanulatus 5-fidus æqualis. *Corolla* bilabiata tubo dorso gibboso; labio superiore erecto bifido, inferiore trifido: laciniâ intermediâ cucullatâ stamina amplectente. *Stamina* didynama, rudimento quinti. *Antheræ* glabræ. *Ovarium* oligospermum, biloculare, placentâ carnosâ, ovulis peltatis. *Stigma* minutum, bifidum, æquale. *Capsula* bilocularis semiquadrivalvis. *Semina* depressa concavo-convexa, testa coriacea, albumine corneo, embryone transverso.——Herbæ (Americæ temperatæ) *annuæ ramosæ,* foliis *oppositis verticillatisve,* floribus *verticillatis, purpurascentibus.*

C. *parviflora;* foliis ovato-oblongis subintegris pubescentibus, floribus axillaribus solitariis, calyce corollæ subæquali, caule pubescente, corollæ laciniis acutis integris.

Annua, caule *ascendente v. erecto, ramoso, terete, levissimè pubescente.* Folia *ovato-oblonga, obtusa, subsessilia, radicalibus pedunculatis, nunc integra, nunc dentata, opposita v. verticillata, utrinque pubescentia, subtùs sæpiùs purpurea.* Flores *axillares, ab imis ferè foliis, solitarii, pedunculis filiformibus: fructiferis nutantibus foliis brevioribus.* Calyx *campanulatus, 5-fidus, subæqualis, corollâ paulò brevior (in icone multò nimis brevis), glanduloso-pubescens, laciniis ovatis acutis.* Corolla *calyce paulò longior, bilabiata, labio superiore erecto, bifido, inferiore tripartito, laciniis lateralibus parallelis, margine interiore intermediam cucullatam stamina amplectentem tegentibus, tubo dorso gibboso.* Stamina *didynama, rudimento quinti, declinata, in sinu laciniæ infimæ corollæ latentia.* Filamenta *glabra.* Antheræ *glabræ, loculis subparallelis.* Ovarium *ovatum, biloculare, oligospermum, placentâ carnosâ, pericarpio tenui.* Ovula *utroque loculo duo, peltata.* Stylus *subulatus, staminum longitudine.* Stigma *minimum, bilobum, æquale.* Capsula *membranacea, calyce tecta, tetrasperma, dissepimento libero, semi-4-valvis.* Semina *badia, nitida, depressa,* hilo *concavo magno,* testa *coriacea;* albumen *corneum;* embryo *viridis, transversus,* cotyledonibus *planis* radiculæ *teretis longitudine.*

Received by the Horticultural Society from Mr. David Douglas, in 1827, by whom it was found in the vicinity of the river Columbia.

A hardy annual, more remarkable as a Botanical curiosity than as an ornamental plant; but forming an addition to a genus of which one species only was previously known. Flowers in May and June, and ripens its seed in abundance.

This is distinguished from Collinsia verna by its smaller flowers, which appear singly in the axillæ of the leaves, not in many-flowered whorls, and by the acuteness of the segments of the corolla. A third species discovered in the same country by Mr. Douglas, and bearing large bright blue flowers (*C. grandiflora* nob.) will soon be published in the present work.

Stem ascending or erect, branched, round, slightly pubescent. *Leaves* ovate-oblong, obtuse, sub-sessile, the radical leaves being stalked, either entire or toothed, opposite or whorled, pubescent on each side, generally purple beneath. *Flowers* axillary, appearing from nearly the earliest leaves, solitary, with filiform peduncles, which are shorter than the leaves, and, when in fruit, nodding. *Calyx* campanulate, 5-cleft, equal, little shorter than the corolla, (in this respect the magnified figure of the flower is inaccurate), glandular-pubescent, with ovate acute segments. *Corolla* but little longer than the calyx, 2-lipped; the upper lip erect, bifid; the lower lip 3-parted, its lateral segments parallel, covering by their inner margin the middle segment, which is cucullate, and encloses the anthers; tube gibbous at the back. *Stamens* didynamous, with a rudiment of a fifth stamen, declinate, lying in the bosom of the lower segment of the corolla. *Filaments* smooth. *Anthers* smooth, with nearly parallel cells. *Ovarium* ovate, 2-celled, few-seeded, with a fleshy placenta, and a thin pericarpium. *Ovula* two in each cell, peltate. *Style* subulate, the length of the stamens. *Stigma* very small, two-lobed, equal. *Capsule* membranous, covered by the calyx, 4-seeded, with a loose dissepiment, half 4-valved. *Seeds* bright brown, shining, depressed, with a large concave *hilum; testa* coriaceous; *albumen* corneous; *embryo* green, transverse, with flat cotyledons the length of the rounded radicle.

The following is Mr. Nuttall's account of his discovery of his Collinsia verna.

" In the spring of 1810, during the course of an extensive journey into the north-western interior of the territories of the United States, I first became acquainted with the very singular and interesting plant which forms the subject of the present memoir. The specimens which I then obtained on the alluvial soils of the Alleghany and on the borders of lake Erie, were finally lost. On arriving at St. Louis, near the confluence of the Missouri and Mississipi rivers, I found that Mr. John Bradbury, a Botanist, had also detected this plant about the same time, on the banks of the Missouri and Mississipi; but I saw no specimen. In the spring of 1816, having undertaken a tour to the Western States, I determined, if possible, again to collect this neglected plant; but after a journey of more than a hundred miles, for scarcely any other purpose, I arrived at Pittsburgh disappointed of my object. On descending the Ohio, however, nearly to Galiopolis, I at last recognised it on the more open alluvions of the river, withered, and nearly past affording seed, accompanied by Hesperis pinnatifida, and the interesting Phalangium esculentum... ....I have dedicated the genus to the name of Mr. Zaccheus Collins, of Philadelphia, a gentleman whose talents as a Botanist and Mineralogist are deservedly acknowledged."

J. L.

CALCEOLARIA integrifolia, *var.* angustifolia.

Narrow-leaved undivided-leaved Slipperwort.

DIANDRIA *MONOGYNIA.*

Nat. ord. SCROPHULARINEÆ.
CALCEOLARIA. *Suprà, fol.* 723.

C. *integrifolia;* foliis ovato-lanceolatis lanceolatisve denticulatis rugosis opacis subtùs ferrugineis, caule calycibusque pubescentibus, paniculis terminalibus pedunculatis.

α. *latifolia;* foliis ovato-lanceolatis argutè denticulatis.

Calceolaria integrifolia. *Suprà, fol.* 744.

β. *angustifolia;* foliis utrinque attenuatis grossè denticulatis, paniculis longius pedunculatis.

C. integrifoliâ archetypâ differt foliis longioribus utrinque attenuatis grossius denticulatis, colore florum intensiore, paniculis copiosioribus pedunculis multò longioribus, ita ut flores non foliis quasi miscentur, sed altius ultrà folia evehuntur. Varietas longè formosior, gracilior.

Gathered in Chile by Mr. James M'Rae, by whom it was found in 1825, in the vicinity of both Valparaiso and Conception, flowering and fruiting from February to October. From seeds collected at the latter period, the plants were raised from which our drawing was taken, in the Garden of the Horticultural Society, in May 1827.

A half-hardy, suffruticose plant, well adapted for planting in the open border, in masses, during the summer, and for ornamenting a conservatory in winter. It is always in flower, and is cultivated and increased with the greatest facility. If protected with a mat, and nailed to an east or west wall, it will survive our winters, and flourish exceedingly; but on a south wall it is too much scorched by the sun.

This differs from the original C. integrifolia, in having much longer leaves, with coarser denticulations, and in

producing its flowers in handsome many-flowered panicles, which are much elevated above the leaves, and not almost level with them. These differences are not the mere effect of cultivation, but are constant in all the wild specimens, collected by Mr. M'Rae, which we have examined.

The chief characteristics of this species are, its finely rugose, denticulated leaves, covered over with a short, soft tomentum, which assumes a ferruginous colour on the under surface; the short white tomentum of the stems, peduncles, and calyx, which are never in any degree viscid; and its terminal, many-flowered panicles.

J. L.

1054

TABERNÆMONTANA gratissima.

Fragrant Tabernæmontana.

PENTANDRIA *DIGYNIA.*

Nat. ord. APOCYNEÆ.
TABERNÆMONTANA. *Suprà, vol.* 4. *fol.* 338.

T. *gratissima;* foliis oblongo-lanceolatis undulatis glabris, dentibus calycinis ovatis acutis, corollæ laciniis convexis difformibus crenulatis, cymis divaricatis, floribus cernuis. *Lindley in Trans. Hort. Soc. vol. vii. part* 1.

Frutex *lactescens, in caldario tripedalis, ad apicem ramosus, cortice cinereo maculato.* Ramuli *teretes, atro-virides, cinereo sparsè maculati.* Folia *rudimento ligulæ in axillâ, glabra, petiolata, ovalia, acuminata, integerrima, suprà atro-viridia, subtùs pallidiora, venosa.* Cymi *semper gemini, basi connati, intrapetiolares, ferè horizontales, petioli longitudine, glaberrimi, biternati.* Pedicelli *breves, crassi.* Calyx *parvus, 5-dentatus, laciniis ovato-lanceolatis, imbricatis, integris.* Corolla *albo-lutescens, fragrantissima, hypocrateriformis, tubo cylindrico versùs apicem pro staminibus ventricoso, limbo tubo paulò breviore, maximè contorto, laciniis oblongis, convexis, margine undulatis.* Tubus *incoronatus, ad faucem carnosus, paulò constrictus, intùs glaber.* Stamina *filamentis pilosis parieti tubi adnatis;* antheræ *liberæ, oblongæ, acutæ: loculis linearibus, connectivo crasso carnoso.* Pollen *album, sphæricum.* Ovarium *superum, subrotundum, bilobum, acuminatum, disco nullo, carnosum, biloculare, ovulis omninò in substantiâ carnosâ reconditis.* Stylus *basi bulbosus bipartitus, ultrà simplex filiformis.* Stigma *bilobum, in cyatho capitato carnoso insidens.*

The following extract from the Transactions of the Horticultural Society, vol. vii. part 1. contains all that is known to us of this plant.

" In many respects this resembles T. coronaria of Roxburgh, from which it is distinguished by the form of the teeth of the calyx, and by the direction of the cymes, which are not erect, but recurved; and by the form of the segments of the limb, which are not flat, as in T. coronaria, but convex, much twisted, and exceedingly uneven at the

margin. In some of these particulars it may be compared to the T. recurva of the Hortus Bengalensis; but that plant is to be readily known by its large leafy calyx, smaller flowers, and more robust stature, and, I believe, is not yet in this country. The plant in the possession of the Society was imported in 1824, by the Honourable Court of Directors of the East India Company, and presented by them to the Society. When in flower it diffuses a delicious fragrance.

"A lactescent shrub, requiring the protection of the stove, where it has attained the height of three feet. The *stem* is much branched, and covered with a cinereous spotted bark. Young *branches* round, dark green, spotted here and there with ash colour. *Leaves* membranous, stalked, oval, smooth, dark green above, paler and veiny beneath. *Cymes* growing by pairs from between the petioles, almost horizontal, with a stalk about as long as the petiole, quite smooth, biternate. *Pedicels* short, thick. *Calyx* five-toothed, with ovate-lanceolate, imbricated, entire segments. *Corolla* yellowish white, hypocrateriform; *tube* longer than limb, slightly ventricose towards the orifice; *limb* much twisted, smooth, with convex, oblong segments, undulated at the margin; orifice fleshy, contracted. *Stamens* included, with hairy filaments, which are adnate to the corolla. *Anthers* not sagittate, oblong, acute, with linear cells, and a rigid, fleshy connectivum. *Pollen* white. *Ovarium* roundish, 2-lobed, acuminate, not seated in a discus, 2-celled, with its ovules all buried in the substance of a fleshy placenta. *Style* bulbous at base, filiform. *Stigma* capitate, with a 2-lobed apex, seated on a fleshy base.

"A valuable stove-plant, flowering in September, and propagated by cuttings: it grows freely in a compost of loam, peat, and sand, mixed in equal quantities."

Our drawing was made in the Garden of the Horticultural Society.

J. L.

1085

MUSCARI glaucum.

Glaucous-leaved Grape-Hyacinth.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Asphodeleæ.
MUSCARI. Suprà, vol. 5. fol. 394.

M. *glaucum;* floribus turbinatis, racemo laxo pyramidato multifloro, foliis latis acuminatis glaucis.

Folia 5-6, *suberecta, plana, glabra, glauca, acuminata, scapo breviora.* Scapus *pedalis, glaber, teres.* Racemus *multiflorus, pyramidalis, floribus longè pedunculatis, distantibus, bracteolâ vix ullâ.* Flores *turbinati, sexdentati, angulati, purpureo-virides, sub fauce paulò constricti, laciniis apice subpubescentibus.* Stamina *fauce inserta.* Stigma *capitatum.*

A single bulb of this new Muscari was sent from Persia, in 1825, to the Horticultural Society, by Henry Willoch, Esq.; the paper which contained it was marked "wild bulb from the mountains." It is quite distinct from any species previously described. M. ciliatum, figured at fol. 394 of this work, is the most nearly related, but differs in having densely ciliated leaves, and in many other respects.

Apparently quite hardy. The root from which our drawing was made flowered in the Chiswick Garden, in a border under a south wall, in May 1827.

Leaves 5 or 6, somewhat erect, flat, smooth, glaucous, acuminate, shorter than the scape. *Scape* about a foot high, smooth, round. *Raceme* many-flowered, pyramidal, with distant flowers on long stalks, and scarcely any bracteola. *Flowers* turbinate, 6-toothed, angular, purplish-green, a little contracted below the faux; the segments downy at the apex. *Stamens* inserted into the faux. *Stigma* capitate.

J. L.

1086.

DIANTHUS Arbuscula.

Shrubby Chinese Pink.

DECANDRIA *DIGYNIA.*

Nat. ord. CARYOPHYLLEÆ.
DIANTHUS. L.

D. *Arbuscula;* floribus paniculatis solitariis, foliis lanceolatis cauleque suffruticoso glabris; bracteis 4 latè ovatis foliaceis erectis, petalis dentatis.

Caulis *suffruticosus, decumbens,* $1\frac{1}{2}$*-2-pedalis, glaber, ramulis purpureo-viridibus.* Folia *atro-viridia, lanceolata, enervia, glabra, nunc subtùs pubescentia.* Flores *paniculis terminalibus solitarii.* Bracteæ 4, *latè ovatæ, nunc cuspidatæ, calyce ter breviores; sæpiùs foliaceæ, erectæ, calycis longitudine.* Calyx *glaucus, ovatus, dentibus tomento marginatis.* Petala *multiplicia, latè cuneata, dentata, lætissimè purpurea; interioribus basi limbi maculatis.*

A half-hardy suffrutescent species of Pink, native of China, whence it was introduced for the Horticultural Society, by Mr. J. D. Parks, in 1824. It flowers freely, from July to October, and is propagated readily by cuttings. This is far more deserving of cultivation than the D. arboreus, on account of its numerous, very handsome double flowers. It has not been discovered in a single state.

Our drawing was made in the Chiswick Garden, in July 1826.

The form of the bracteæ is subject to some variation; occasionally, they are much shorter than the calyx, with a small cuspidate point; or they have a foliaceous termination, which equals the calyx in length: the latter form is that which we have taken as the natural state of the species; the former being, in all probability, attributable to an unnatural state of depauperation of the bracteæ, induced by the excessive development of the corolla.

The *stem* is decumbent, and suffruticose, from a foot to a foot and a half in height; the young shoots are purplish green. *Leaves* bright green, lanceolate, smooth, except on the under surface of the younger ones, nerveless, entire. *Flowers* solitary, in terminal panicles. *Petals* multiplied, dentate, of a delicate rich purplish crimson; the inner ones spotted at the base of the limb.

J. L.

1087

Hart. del.   Pub by J. Ridgway 169 Piccadilly   S. Watts

OPHRYS atrata.

Dark-lipped Ophrys.

Nat. ord. ORCHIDEÆ. *Tribus* Ophrydeæ *Lindl.*
OPHRYS. *Suprà, vol. 3. fol. 205.*

O. *atrata;* labello emarginato integerrimo convexo villoso inappendiculato bivittato versùs basin bicorni, sepalis herbaceis: interioribus ovatis pubescentibus discoloribus exterioribus obtusis duplò brevioribus, foliis glaucis.

Caulis *pedalis v. ultrà, foliosus.* Folia *glauca, ovali-lanceolata, plana.* Sepala *exteriora ovata, obtusa, subherbacea, inferioribus latioribus et longioribus; interiora duplò breviora, acutiuscula, pubescentia, purpureo discolora.* Labellum *atro-purpureum, subrotundum, convexum, integerrimum, emarginatum, appendiculâ nullâ, in disco glabriusculum, vittis duabus pallidè fuscis sublucidis notatum, versùs basin utrinque cornutum, ad ipsam basin lucidum, glaberrimum.* Columna *pubescens, sepalis interioribus subæqualis v. brevior.*

This plant was sent from Rome to the Horticultural Society, in 1826, by Signor Mauri, under the name of Ophrys araneifera, to which it is undoubtedly closely allied. But there are some differences between the plants, in the structure of their flowers, which, as the species of Ophrys are at present constructed, induce us to consider them as two kinds, hitherto confounded with each other.

The true *O. araneifera,* which is well represented in English Botany, tab. 65, is distinguished from *O. arachnites,* firstly, by the absence of an appendage, or mucro, from the apex of its labellum; secondly, by the roundish outline of the same part, which in *O. arachnites* is always more or less cuneate; and, thirdly, by its smoother and more elongated interior sepals. In these points, the plant now represented agrees with *O. araneifera,* but it differs in having a very entire shaggy labellum, which in *O. araneifera* is downy, and usually 3-lobed; in its inner sepals being more decidedly pubescent; and in the presence of two large

horn-like elevations towards the base of the labellum. The marking of the latter is nearly the same in both species.

In the cornute processes of its labellum, *O. atrata* agrees with O. *arachnites*.

We have fine specimens of this species, collected in the neighbourhood of Trieste, by Dr. Hornschuch, from whom we received it as a new species.

Our drawing was made in the Garden of the Horticultural Society, at Chiswick, in May 1827: the plant was in a pot, and had been preserved during the winter in a common wooden frame.

We may here remark, that this was received by the Horticultural Society, from Signor Mauri, at the same time with several other Orchideous plants of the South of Europe: their roots had been dried, and then packed in paper, like seeds, and they have all succeeded perfectly, although when the roots arrived in England they were so shrivelled in appearance that it was not expected they would have survived. It is to be hoped, that if this statement should meet the eyes of Botanists or Amateurs who have the means of procuring supplies of these plants from the South of Europe, or from Barbary, the very simple mode just mentioned, of transmitting them to this country, will be adopted.

J. L.

GEUM coccineum.

Scarlet Geum.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. Rosaceæ. *Tribus* Dryadeæ *Vent. Dec.*

GEUM L.—*Cal.* tubus concavus, limbus 5-fidus extus 5-bracteolatus. *Petala* 5. *Stamina* 00. *Carpella* exsucca caudata in capitulum disposita, styli parte inferiore post anthesin induratâ uncinatâ superiore deciduâ. *Semen* ascendens.——Herbæ; foliis *pinnatis, foliolo ultimo maximo.*

G. *coccineum;* foliis caulinis trilobis, radicalibus lyratis, lobo terminali maximo cordato-reniformi, floribus erectis coccineis. *Seringe in Decand. prodr.* 2. 551.

? G. coccineum. *Smith Fl. Græc. prodr.* 1. 354. *Spreng. syst.* 2. 542.

G. chiloense. *Balbis MSS.*

Caulis *erectus,* 1½-2-*pedalis, ramosus, glandulosus, pilosus.* Folia radicalia *pinnata, villosa, sublyrata, foliolis ovatis incisis, alternatim minoribus, ultimo maximo cordato, subtrilobo, crenato-serrato;* caulina *tripartita vel triloba, incisa, stipulis magnis subrotundis* 2-3-*dentatis.* Flores *paniculati, erecti.* Calyx *5-fidus, tomentosus, extus* 5-*bracteolatus.* Petala *calyce longiora, subrotunda, emarginata, ciliata, cum staminibus persistentibus, intensè crocea.* Styli *glabri, supra medium geniculatim refracti, pilosi; parte superiore deciduâ teneriore.* Carpella *obovata, villosa, stylo indurato uncinato coronata.*

For this extremely beautiful perennial, the public is indebted to M. Balbis, of Lyons, by whom it has been communicated to most of the principal gardens of Europe.

Quite hardy, and flowering in a common border, exposed to the north, from May to August. Our drawing was made in such a situation in the garden of the Horticultural Society, by whom it was received from M. Balbis, in 1826. The brilliancy of its blossoms is unrivalled among the dwarf inhabitants of the flower garden. It requires no particular treatment.

If the reference to the Flora Græca be correct, this should be a native of Mount Olympus; but M. Seringe remarks, that his specimens were communicated by Professor Balbis under the name of *G. chiloense*. It would be very extraordinary if a plant known to be a native of Greece should be found also on the coast of Chile; we, however, possess specimens collected in the neighbourhood of Conception, by Mr. James M'Rae, which are certainly so like this species that we are not able to distinguish them. We are therefore led to suspect that the supposed identity of this plant and the G. coccineum of Sir James Smith requires investigation. We recommend this subject to the consideration of those who are in possession of Olympian specimens.

Stem erect, a foot and half or two feet high, branched, glandular, hairy. *Radical leaves* pinnated, villous, somewhat lyrate, with ovate cut leaflets, which are alternately smaller, the last very large, cordate, somewhat 3-lobed, crenate-serrate; *cauline* 3-parted or 3-lobed, cut, with large, roundish, 2-3-toothed stipules. *Flowers* panicled, erect. *Calyx* 5-fid, downy, with 5 bracteolæ on the outside. *Petals* longer than the calyx, roundish, emarginate, ciliated, deep saffron coloured, as well as the persistent stamens. *Styles* smooth, abruptly bent back above the middle, and pilose; the upper portion being more tender than the lower. *Carpella* obovate, villous, crowned with the indurated uncinate lower portion of the style.

J. L.

1159

GREVILLEA juniperina.

Juniper-leaved Grevillea.

TETRANDRIA *MONOGYNIA.*

Nat. ord. PROTEACEÆ.
GREVILLEA. Suprà, vol. 6. fol. 443.

I. Folliculi coriacei, stylo toto stigmateque depresso coronati. Semina ovalia angustissimè marginata, apiceve brevissimè alata.

Sect. A. *Folia omnia integerrima (in plerisque marginibus refractis v. replicatis pseudo-trinervia). Flores fasciculati v. in racemo abbreviato. Stylus glaber. Folliculus ecostatus.* LISSOSTYLIS. Brown. prodr.

G. *juniperina;* foliis subulatis fasciculatis divaricatis marginibus refractis, ramulis villosis teretiusculis, pistillis semuncialibus pedunculo partiali quadruplò longioribus. *Brown in Linn. Trans.* 10. 171. *prodr.* 377.

G. juniperina. *Römer et Schultes syst. veg.* 3. 411. *Mantissa* 3ª. *p.* 279. *Spreng. syst.* 1. 476.

Frutex (*spontaneus tripedalis, diffusus, juniperi facie*); Rami *teretes, villosi, pilis longis intertextis.* Folia *fasciculata, subulata, pungentia, marginibus refractis, suprà glaberrima, subtùs ad basin pilis rufis peltatis vestita (in spontanea omnino tecta).* Flores *in racemis capitatis terminalibus, herbacei (in spontanea carnei).* Pedunculus *rufo-tomentosus;* pedicelli *rufo-tomentosi, ovario multò breviores.* Perianthium *hinc fissum, 4-fidum, tomentosum, laciniis retortis, intus villosum (in spontanea glabrum) ad faucem densissimè barbatum.* Antheræ *pedicellatæ, in apicibus concavis laciniarum, cordatæ acutæ biloculares.* Ovarium *pedicellatum, ovatum, obliquum, dispermum, cum stylo glaberrimum.* Stylus *crassus, geniculatim recurvus.* Stigma *laterale, ovale, disco prominulo.* Glandula hypogyna, *reniformis, carnosa.* Folliculi *ovati, rugulosi, stylo et stigmate persistentibus induratis coronati.*

Found by Mr. Brown, on heaths, in the vicinity of Port Jackson, in New Holland. More recently it has been discovered in abundance upon the banks of the Nepean river, where it forms a straggling bush, about three feet high, producing its blossoms in August.

The wild plant differs from that in the gardens in two

or three points which deserve notice: the flowers of the wild plant are flesh-coloured, not greenish-yellow; the leaves are clothed beneath with rufous hairs, of which slight traces only are perceptible in the cultivated plant; and the inside of the tube of the perianthium is quite smooth, not covered with long down. In aspect they are quite alike; and with the exception of the latter character, which is unexpected, these differences are immaterial. The garden plant approaches in some points the G. acicularis of Sieber.

A hardy green-house plant; our drawing of which was made in Mr. Colvill's Nursery, in April 1826.

A large quantity of honey is secreted by the flowers, and in our dried specimens it remains in the form of white transparent crystals.

A shrub, in its native country growing to the height of about three feet, straggling, with the aspect of a juniper bush. *Branches* round, villous, with long entangled hairs. *Leaves* fascicled, subulate, pungent, with the edges folded back, quite smooth above, beneath clothed with peltate brownish hairs, which are far more abundant in the wild plant. *Flowers* in capitate terminal racemes, of a greenish-yellow colour; in the wild plant pink. *Peduncle* clothed with rufous down; *pedicels* the same, much shorter than the ovarium. *Perianth* slit on one side, 4-fid, downy, with the segments twisted back; in the inside villous, (in the wild plant smooth,) with a very thick beard at the throat. *Anthers* pedicellate, seated in the concave apices of the segments, cordate, acute, 2-celled. *Ovarium* pedicellate, ovate, oblique, 2-seeded, as well as the style quite smooth. *Style* thick, bent back, with a knee-joint. *Stigma* lateral, oval, with a prominent centre. *Hypogynous gland* reniform, fleshy. *Follicles* ovate, rugulose, crowned with the indurated style and stigma.

J. L.

SISYRINCHIUM cyaneum.

Sky-blue Sisyrinchium.

MONADELPHIA (TRIANDRIA *MONOGYNIA*) *MONANDRIA.*

Nat. ord. IRIDEÆ.
SISYRINCHIUM. *Suprà, vol.* 12. *fol.* 1067.

S. *cyaneum;* caule paniculato, foliis lineari-ensiformibus scapo subæqualibus margine glabris, perianthii laciniis ovato-oblongis uniformibus, staminibus subliberis stylo multò longioribus.
Orthrosanthus multiflorus. *Sweet fl. Australasica, fol.* 11.

This was first discovered upon Kangaroo Island, off the south coast of New Holland, in 1803, by Mr. Brown, but with no perfect fructification. It was subsequently observed in the same place, in a similar state, by M. Leschenault; and has lately been detected with ripe fruit upon the same island, by Mr. William Baxter, collector to Mr. Henchman. No other station has yet been found for it.

It is a half-hardy, evergreen, herbaceous plant, and perhaps may be preserved in the winter in the open border, with a little protection. Its beautiful sky-blue flowers are produced in abundance from May to July; but they open only in the early part of the day. Our drawing was made at Mr. Mackay's Nursery, in June last.

We do not find a single point of structure in which this plant recedes from Sisyrinchium. Its habit is the same; its stamens are inserted opposite the outer segments of the flower, and alternate with the styles; the stigmata are those of Sisyrinchium; and, as far as is at present known, the fruit also. The separation of the filaments in this plant is a character common to it with many admitted Sisyrinchia, and has been noticed both by Mr. Brown, in

his Prodromus, and Mr. Ker, in his recent revision of the genera of Irideæ, under Marica, from which he does not distinguish Sisyrinchium.

It is remarkable that this species should not possess the peculiar distinction of the two other New Holland Sisyrinchiums, in having the outer segments of the flower narrowest; a curious character, which, Mr. Brown observes, they possess in common with a third from New Zealand, and which induces a suspicion of their forming a particular genus.

J. L.

Note upon *Moræa Herberti*, fol. 949.

In an excellent dissertation upon the genera of Irideæ, by John Bellenden Ker, Esq., which has just reached us, we observe that this plant is referred to Marica, under the name of *Marica Herbertiana*. But as there is no doubt that the stamens of Moræa Herberti are opposite the stigmas, and not alternate with them, which is the essential character of Moræa, we confess our inability to discover the reason of this change. The fact is, that the two genera, Moræa and Marica, are so entirely artificial, that if the character just named be abolished, we know of nothing that will remain to distinguish them.

1091

CAMELLIA Sasanqua flore pleno.

Double White Sasanqua Camellia.

MONADELPHIA *POLYANDRIA.*

Nat. ord. Camellieæ.
CAMELLIA. Suprà, vol. 1. *fol.* 12.

Div. II. Thea.

C. *Sasanqua;* foliis ovato-oblongis obtusè serratis, floribus terminalibus subsolitariis, petalis obcordatis. *Decand. prodr.* 1. 529.

C. Sasanqua. *Thunb. jap.* 273. *t.* 30. Suprà, vol. 1. fol. 12.

β. flore pleno.

This is the true double variety of Camellia Sasanqua, which has been so long sought after by collectors, and which is essentially distinct from the plant given for it at fol. 547 of this work, which is now known under the name of Camellia maliflora. See fol. 1078.

It was imported for the Horticultural Society, in 1823, by Captain Drummond, and produced its flowers for the first time in this country in the early part of December 1826. In its general habit and appearance it differs but little from the common Sasanqua. The stem is round, nearly smooth, and of a deep brown colour, with numerous round, twiggy, pendulous, alternate branches, thickly clothed with very short silky pubescence. Leaves alternate, elliptic, lanceolate, serrate, rather larger than those of the common Sasanqua, usually 2½ inches long, and 1½ inch broad; coriaceous, smooth, and flat; of a dark and somewhat shining green on the upper side, but considerably paler and very glossy beneath; midrib prominent, slightly villous; petioles short, rounded on the lower side, and somewhat channelled above, villous, brownish-green.

Flowers axillary, solitary, produced near the extremity of the branches, expanding regularly, to about an inch in diameter, and forming a neat flower, of a yellowish-white colour; the exterior petals are each about an inch long, and scarcely a quarter of an inch broad, roundish, or sometimes slightly cut at the edges, incurved, and gradually diminishing in size towards the centre of the flower, which is pitted. *Stamina* numerous, filiform, short, scarcely the length of, or rarely exceeding that of the inner petals, becoming prominent as the flowers grow old, and the petals expand. *Anthers* large, two-lobed, deep yellow, some of them partly transformed into very small white petals. Before opening, the flower-buds are roundish, slightly pointed, covered with many round, concave, imbricated, deciduous, chocolate-coloured, downy scales.

Our drawing was made in the garden of the Horticultural Society, in December 1826.

For the above account of this plant we have to acknowledge our obligation to Mr. William Beattie Booth, who is occupied upon a complete history of Camellias.

J. L.

PITCAIRNIA flammea.

Flame-coloured Pitcairnia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. BROMELIACEÆ.
PITCAIRNIA. *Suprà, fol.* 1069.

P. *flammea;* foliis lanceolatis integerrimis acuminatis subtùs lanuginosis, pedunculis calycibusque glaberrimis, petalis rectis staminibus longioribus.
Herba 2-3-*pedalis.* Folia *lanceolata, erecto-patentia, undulata, striata, integerrima, apice valdè attenuata, suprà paululum furfuracea, subtùs glauca, lanuginosa.* Scapus *erectus, glaberrimus, squamosus; squamæ ovatæ acuminatæ.* Racemus *strictus, multiflorus.* Pedicelli *bracteis breviores calycesque glaberrimi.* Petala *lætissimè sanguinea, recta, secunda, staminibus longiora.* Stigmata 3, *convoluta.*

We are indebted to the rich collection of Richard Harrison, Esq., of Liverpool, for this noble addition to the genus Pitcairnia, which flowered in his stove, at Aighburgh, in November 1826. It had been sent from Rio Janeiro, by Mr. William Harrison, now resident at that place, to whose exertions we owe the introduction of a larger number of rare Brazilian plants than to those of any other individual.

The *Pitcairnia suaveolens,* figured at folio 1069, was also flowered by Mr. Richard Harrison, and not in Mrs. Arnold Harrison's hot-house, as we inadvertently stated.

A plant growing two or three feet high. *Leaves* lanceolate, erect, spreading, wavy, striated, quite entire, much tapering to the point, slightly mealy above, glaucous and woolly beneath. *Scape* erect, quite smooth, scaly; *scales* ovate, acuminate. *Raceme* erect, many-flowered. *Pedicels* shorter than the bracteæ, and the calyxes quite smooth. *Petals* bright blood-red, straight, one-sided, longer than the stamens. *Stigmas* 3, convolute.

This species differs from *P. staminea* in not having its petals rolled back, and in the greater breadth of its leaves; from *P. integrifolia* in having smooth calyces and pedicels; from *P. latifolia* in the absence of spines from the base of the leaves, and in the relative proportion of the bracteæ and pedicels; from *P. albiflora* in its broader leaves, which are woolly beneath, and in the great length of the bracteæ; from *P. suaveolens* in the presence of down on the under side of the leaves, and in the smoothness of the pedicels and rachis; and from both the last-mentioned species in the colour of the flowers.

J. L.

OPHRYS tenthredinifera; β. minor.

Dwarf large-flowered Ophrys.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchideæ. *Tribus* Ophrydeæ *Lindl.*
OPHRYS. *Suprà, vol.* 3. *fol.* 205.

O. *tenthredinifera;* labello integerrimo subquadrato cuneato villoso appendiculato basi auriculato cornuto sub apice barbato, disco glabro cinnamomeo areolâ quadratâ cyaneo-marginatâ, sepalis coloratis: interioribus parvis ovatis acutis tomentosis; exterioribus oblongis retusis patentissimis, bracteis coloratis spatulatis florum longitudine, caule squamoso.

Ophrys *insectifera A. rosea* labello villoso oblongo-obovata, apice bilobo appendiculato. *Desf. atl.* 2. 320.

Ophrys tenthredinifera. *Willd. sp. pl.* 4. 67. *Suprà, vol.* 3. *fol.* 205. *Bot. mag. fol.* 1930. *Spreng. syst.* 3. 702.

β. minor; caule semper humiliore 3-floro.

? Orchis orientalis fucum referens flore parvo villosissimo acuto azureo. *Tourn. cor.* 30.

? Ophrys villosa. *Desf. in. ann. mus.* 10. 225. *t.* 14.

Orchis ornifuciflora genata rubiginea ambitu viridi. *Cupani, Panphyt.* 1. *t.* 175. *Bonanni t.* 28. fide *Bivonæ.*

Orchis orniflora, amplo labello, genato, rubigineo, ambitu viridi, larvulam fictitante. *Cupani Hort. Cathol. p.* 158. fide *Bivonæ.*

O. tenthredinifera. *Bivon. Bernard. sic. plant. centuria,* 2. *p.* 39. *t.* 4. *Presl. fl. sic.* 1. *p. xli.* *Viviani Fl. Cors. Prodr.*

O. grandiflora. *Tenore app. alt. p.* 83. *Fl. Napolit.* 308. *t.* 94.

There is already an accurate description of one variety of the present species at fol. 205 of this work; it is therefore needless to repeat it on this occasion.

The Ophrys tenthredinifera divides into two well-marked varieties; the first, which we judge to be that originally described by Desfontaines, and upon which Willdenow founded the species, is well represented at fol. 205 of our third volume. It is a native of Barbary and Turkey, and

of all the African side of the basin of the Mediterranean; and is chiefly distinguished by its greater stature, more numerous and larger flowers, and spreading bracteæ. It may be considered the most genuine form of the species.

The variety now represented is found abundantly in shady, hilly places in Sicily, Corsica, Calabria, and in other places upon the European shores of the Mediterranean. It is a beautiful little plant, representing O. tenthredinifera in its more northern stations, and sufficiently hardy to bear cultivation well in a common frame. It was received by the Horticultural Society in 1826, from Signor Mauri, of Rome, under the name of O. grandiflora, by which Professor Tenore has published it in the Flora Napolitana. Our drawing was made at the Chiswick Garden, in May 1827.

Ophrys crabronifera of Sebastiani and Mauri, which is referred by Professor Sprengel to the present species, is closely allied, but is apparently distinguishable by its greater stature, by its brown labellum, by the want of the tuft of hairs under the little appendage of the apex of the labellum, and by a shaggy base to the same portion of the flower.

It has already been remarked, that this plant has been called O. grandiflora by Professor Tenore. This arose from an error having been committed by that skilful Botanist in referring to the Ophrys tenthredinifera of Willdenow, a Neapolitan plant which is undoubtedly distinct from the Ophrys grandiflora, but which is not the species of Desfontaines, nor consequently of Willdenow. This mistake does not appear to have been previously noticed; we shall use the opportunity now afforded us of rectifying it, and of pointing out the characters by which the Neapolitan plant may be distinguished in future.

O. *Tenoreana;* labello integerrimo cuneato villoso appendiculato sub apice barbato, disco fusco linea flexuosa lutea, sepalis coloratis: interioribus parvis ovatis acutis tomentosis, exterioribus subrotundis, bracteis lanceolatis herbaceis floribus longioribus, caule squamoso.

O. tenthredinifera. *Tenore Fl. Napol. p.* 308. *tab.* 93. nec aliorum.

Hab. in Calabriæ dumetis. Floret Aprili et Maio. *Tenore.*

J. L.

VALERIANELLA congesta.

Close-headed Corn-Salad.

TRIANDRIA *MONOGYNIA.*

Nat. ord. VALERIANEÆ.

VALERIANELLA. — *Calyx* margo dentatus v. rectus. *Corolla* bilabiata, 5-fida, basi gibbosa v. calcarata. *Stigma* 2-3-dentatum. *Cypsela* trilocularis, loculis duobus inanibus nunc apertis.

Div. PLECTRITIS; an genus?

Loculi inanes aperti alæformes. Corolla calcarata.

V. *congesta;* foliis integris, radicalibus spatulatis, caulinis ovatis subdentatis, verticillis cymosis congestis.

Herba *annua, variabilis, nunc palmaris, simplex, floribus foliis brevioribus, nunc ramosus, pedalis sesquipedalisve, verticillis longè pedunculatis.* Caulis *angulatus.* Folia *glaberrima, radicalia obovata v. spatulata, integerrima, caulina latè ovata, sessilia, subdentata, floralia lineari-oblonga.* Flores *monæci, verticillati; verticillis bipartitis, cymosis; masculi majores.* Bracteæ *multifidæ, pubescentes, laciniis subulatis coloratis glabris.* Ovarium *pubescens, ovatum, anticè bialatum ob loculos inanes apertos, uniloculare.* Calyx *margo rectus integerrimus.* Corolla *carnea, nunc virescens, bilabiata, 5-fida, laciniis oblongis obtusis, tubo anticè gibboso, basi calcarato, calcare brevi arcuato obtuso.* Stamina 3. Cypselæ *pubescentes, cartilagineæ, bialatæ, alis (è loculis inanibus apertis) involutis.*

A beautiful annual, native of the north-west coast of North America, whence seeds were sent to the Horticultural Society, by Mr. David Douglas, in 1826. Our drawing was made in the Chiswick Garden, in June last. By far the handsomest of the genus, perfectly hardy, and easily cultivated in the open border of the flower garden.

It is not very evident to what genus of Valerianeæ this plant is referable. With Centranthus it agrees in having calcarate flowers; but it differs from that genus in having 3 stamens; and from all the genera with ecalcarate flowers, in the peculiar nature of the fruit, which is 3-celled, with two abortive cells, as Valerianella, but with the empty

cells spread half open, in the form of wings to the grain, and in having a long spur at the base of the corolla. As the genera of Valerianeæ are now constituted, we should have been justified in proposing this as a peculiar genus; we have, however, preferred recording it as a curious section of Valerianella, with a name which may be adopted hereafter, if the characters should be considered sufficiently important to constitute a genus.

An annual plant, extremely variable in appearance, being sometimes only a span in height, and simple, with the flowers overtopped by the leaves, or sometimes branched, growing to the height of a foot, or a foot and a half, with the whorls of flowers on long stalks. *Stem* angular. *Leaves* quite smooth, the radical ones obovate or spatulate, and entire; the cauline ones broadly ovate, sessile, somewhat toothed; the floral ones linear-oblong. *Flowers* monœcious, whorled; whorls cymose, 2-parted; the male flowers the largest. *Bracteæ* multifid, pubescent, with subulate, coloured segments. *Ovarium* pubescent, ovate, one-celled, with two wings in front, caused by the opening of two other cells, which are abortive. *Calyx* a straight entire margin. *Corolla* flesh-coloured, sometimes greenish, 2-lipped, 5-fid, with oblong, obtuse segments; *tube* gibbous in front, with a short bent blunt spur at the base. *Stamens* 3. *Cypselæ* downy, cartilaginous, with two wings, the wings formed out of the open empty cells, and involute.

J. L.

CYCLAMEN Persicum *var.* laciniatum.

Cut-flowered Persian Sow-bread.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Primulaceæ.
CYCLAMEN. Suprà, vol. 12. *fol.* 1013.

C. *persicum;* foliis oblongo-ovatis cordatis reniformi-cordatisve crenatis, laciniis corollæ oblongis obtusis. *Römer et Schultes* 4. 130. aliorumque.
Var. *laciniatum;* corollis maximis patentibus laceris.

This monstrous variety of the Persian Cyclamen is remarkable not only for its singular beauty and size, but also for the tendency it manifests to a division of its corolla, like that of the nearly related genus Soldanella. The divisions of the calyx and corolla, and the stamens, are increased beyond their natural number, but in an uncertain proportion: for instance, in the single flower we examined, the divisions of the calyx were 9, and much enlarged; those of the corolla were 6, and the stamens were 8. The whole plant is far more gigantic than its parent, and its corolla is never reflexed.

The only specimen at present existing of this variety was raised in the garden of the Countess of Sandwich, at Hinchingbrook, by Mr. William Heyland, the Gardener. It made its appearance among some seedlings of Cyclamen persicum, and was from the first distinguished by its peculiarly strong growth, and unusual aspect.

For the specimen from which our drawing was made, we are indebted to the Rev. J. Huntly, of Kimbolton, at whose request it was sent us for publication.

J. L.

LUPINUS polyphyllus.

Large-leaved Perennial Lupine.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. Tribus *Phaseoleæ* Dec.
LUPINUS. Suprà, vol. 6. fol. 457.

L. *polyphyllus;* herbaceus perennis, foliolis 11-15 lanceolatis subtùs hirsutis, floribus spiraliter verticillatis ebracteolatis, calycis utroque labio integerrimo.

Caulis *erectus, tripedalis, teres, pilosus.* Folia *digitata, petiolo* 10-12 *uncias longo insidentia;* foliolis 11-15, 5 *uncias longis, serie duplici insertis, lanceolatis, crassiusculis, suprà glabris, subtùs hirsutis, viridibus.* Racemus *terminalis, erectus, aliquando* 2 *pedes excedens, rachide pedicellisque pubescentibus.* Flores *verticillati, verticillis sæpè in seriem spiralem à basi ad apicem racemi confluentibus.* Calyx *pubescens, ebracteolatus, bilabiatus, labio utroque integerrimo, superiore latè ovato, inferiore acuminato breviore.* Corolla *purpurea;* vexillo *apiculato, revoluto, cæteris partibus breviore et coloris intensioris;* alis *valdè convexis, semi-oblongis, obtusis, basi striatis;* carinâ *pallidâ, falcatâ, longè rostratâ, rostro acuminato atropurpureo, utrinque super ungue saccatâ, marginibus glaberrimis.* Stamina *alterna nana, antheris linearibus; fertilia filamentis linearibus, antheris subrotundis;* polline *aurantiaco.* Stylus *subulatus, glaberrimus;* stigma *parvum, fimbriatum.* Legumen *oblongum, hirsutum, 5-spermum, seminibus oblongis, fuscis, nebulosis.*

This Lupine is one of fourteen new species, mostly perennials, which have been discovered by Mr. David Douglas, in the north-west of North America, along with the Lupinus sericeus of Pursh. The latter, and many of the others, have been raised in the Garden of the Horticultural Society, where our drawing of the present species was taken in July last. They will próve some of the most valuable additions that have been made to our garden collections for many years.

L. polyphyllus is nearly related both to L. perennis and Nootkatensis, from which it obviously differs in its much greater stature, and lanceolate leaflets, which vary from

11 to 15, or even more; while those of either of the others are seldom more than 8. There are also other points of difference in the calyx and corolla.

A hardy perennial, flourishing in common earth, and flowering from June to September. It is readily increased by seeds, which are produced in great abundance.

Stem erect, about 3 feet high, pilose, round. *Leaves* digitate, placed on a petiole 10 or 12 inches long; *leaflets* 11-15, about 5 inches long, inserted in a double row, lanceolate, thickish, smooth above, hairy and green below. *Raceme* terminal, erect, sometimes more than 2 feet long, with downy rachis and pedicels. *Flowers* whorled, the whorls oblique, and often confluent into a spiral line from the base to the summit of the racemus. *Calyx* pubescent, without bracteolæ, bilabiate, both lips entire, the upper broadly ovate, shorter than the lower, which is acuminate. *Corolla* purple; *vexillum* apiculate, revolute, shorter than the other parts, and of a deeper colour; the *alæ* very convex, half-oblong, obtuse, striated at the base; *carina* pallid, falcate, with a long, acuminate, deep-purple beak, saccate on each side above the claw, and quite smooth at the margin. *Stamens* alternately dwarf, with linear anthers, the fertile ones with linear filaments and roundish anthers; *pollen* orange-coloured. *Style* subulate, very smooth; *stigma* small, fringed. *Pod* oblong, hirsute, 5-seeded, with oblong, cloudy, brown seeds.

The inflorescence of this plant occasionally offers a beautiful illustration of the theory, *that all the organs of a plant have really an alternate insertion, in a spiral direction, round the stem, or some other common axis, however different the apparent insertion may be.* In this plant, the usual arrangement of the flowers is in the whorls, at short distances along the rachis; but occasionally, in very luxuriant specimens, in each whorl the line of insertion round the rachis separates at a given point, one end taking a direction upwards, the other a direction downwards; the extremities of each whorl meet, and the line of insertion thus becomes spiral from the base to the summit.

J. L.

1094

EHRETIA serrata.

Serrated Ehretia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Cordiaceæ.

EHRETIA L. — *Calyx* profundè 5-fidus. *Corolla* infundibuliformis; fauce nudâ: limbo 5-lobo. *Stamina* exserta. *Stylus* semibifidus. *Stigmata* obtusa. *Bacca* dipyrena, ossiculis bilocularibus dispermis. —— Arbores *v.* frutices. Folia *integra v. serrata.* Paniculæ *terminales.* Brown Prodr. 1. 497.

E. *serrata;* foliis oblongo-lanceolatis acuminatis serratis glabris, paniculis terminalibus axillaribusque compositis, floribus fasciculatis sessilibus. (Indica.)

E. serrata. *Roxb. Hort. Beng. p.* 17. *Römer et Schultes sp. plant.* 4. 805. *Wallich Flora Indica,* 2. 340.

E. pyrifolia. *Don prodr. fl. nep.* 102. *Spreng. curæ posteriores, p.* 66.

β. *obovata;* foliis ovalibus obovatisque utrinque acuminatis subpilosis. (Chinensis.)

Rami *teretes, glabri.* Folia *oblongo-lanceolata, glabra, serrata, acuta, petiolata, utrinque lævia, superioribus angustioribus.* Paniculæ *axillares et terminales, compositæ, fasciculis florum sessilibus distantibus.* Calyx *inferus, pentaphyllus, foliolis subrotundis, ciliatis, imbricatis, post lapsum corollæ in ovarium arctè inflexis.* Corolla *monopetala, rotata, 5-partita, laciniis ovato-oblongis, recurvis.* Stamina *5, sinubus corollæ inserta ejusque longitudinis.* Ovarium *subrotundum, 4-loculare, loculis monospermis; ovulis funiculo ab apice loculorum pendulis.* Stylus *semibifidus.* Stigmata *simplicia.*

We received this plant from Mr. Colvill's Nursery, so long since as August 1825, as a native of the Caraccas, and raised from seed given to Mr. Colvill by Dr. Anthony Todd Thomson. There must, however, have been some mistake in the matter, as it is certainly the Ehretia serrata of Roxburgh, which has never yet been discovered except in the East Indies.

We believe it to be also the *E. pyrifolia*, an excellent and much better name, of Mr. D. Don, which was supposed

to differ from E. serrata in having the leaves rounded at the base. But upon referring to very fine authentic specimens in our possession of E. serrata, we find that its leaves are always rounded at the base, and that Mr. Don's definition of E. pyrifolia fits them exactly. E. serrata is altogether omitted in Sprengel's *Systema;* but he refers it to E. pyrifolia, retaining the latter name, in his *Curæ Posteriores.*

A native, according to Dr. Wallich, of Bhotan and the eastern parts of Bengal, where it flowers during the hot season. The trees are about 30 feet high, bearing round, pulpy, red drupes, about the size of a pea, which in Bhotan are said to be delicious, but in other districts are not esteemed.

From specimens communicated to the Horticultural Society by John Reeves, Esq., a variety, or nearly allied species, appears to be found in China, which recedes from the true E. serrata in having obovate leaves tapering to each end: this is the β. of the present article.

The plant from which our drawing was made was kept in the stove; but from its appearance, and from the native country of the species, we do not doubt that its proper station would be a cool conservatory. Like all its tribe, it grows freely in peat and loam; and cuttings strike readily under a hand-glass.

Branches round, smooth. *Leaves* oblong-lanceolate, smooth, serrated, acute, stalked, free from asperities on either side, the upper narrower than the others. *Panicles* axillary and terminal, compound, the flowers growing in sessile distant fascicles. *Calyx* inferior, 5-leaved, with roundish, ciliated, imbricated leaflets, which are closely inflexed upon the ovarium after the corolla has fallen. *Corolla* monopetalous, rotate, 5-parted, with ovate-oblong recurved segments. *Stamens* 5, inserted into the recesses of the corolla, and of the same length. *Ovarium* roundish, 4-celled, with monospermous cells, and ovules pendulous by a funiculus from the apex of the cells. *Style* half bifid. *Stigmata* simple.

J. L.

1098

PLECTRANTHUS australis.

Southern Plectranthus.

DIDYNAMIA *GYMNOSPERMIA.*

Nat. ord. LABIATÆ. Sect. II. B. *Calyx bilabiatus.* R. Br.

PLECTRANTHUS L'Héritier.—*Calyx* bilabiatus, labio inferiore diviso, striatus; fructifer basi subtùs gibbosus. *Corollæ labium superius* 3-fidum, laciniâ mediâ bilobâ; *inferius* longius integrum (plerumque concavum). *Stamina* declinata, filamentis edentulis (nunc basi connatis); *antheris* unilocularibus, imberbibus.—— Herbæ *v.* suffrutices *plus minus pubescentes glandulisque conspersæ.* Folia *crenata.* Flores *verticillato-racemosi, terminales.* Corolla *sæpiùs cærulea.* Brown prodr. 1. 505.

I. Corolla tubo ecalcarato, calycem bis superante: labio inferiore longiore concavo.

P. *australis;* calycis labio inferiore 4-partito: laciniis mediis vix longioribus, verticillis distinctis; pedicellis calycem fructiferum subæquantibus, foliis ovatis inciso-crenatis rugosiusculis pubescentibus, caule herbaceo. *Brown prodr.* 1. 506. *Spreng. syst.* 2. 690.

Caules *carnosi, pubescentes.* Folia *petiolata, carnosa, subrotunda, rugosa, grossè crenata, petiolis hirsutis.* Rachis *angulatus, pubescens.* Verticillastri *subebracteati, pauciflori.* Flores *parvi, pallidè purpurei.* Calyx *pubescens, resinoso-punctatus, basi subtùs gibbosus, lacinia suprema subrotunda, ovata, inferioribus subulatis, sursùm falcatis.* Corolla *laciniis superioribus rotundatis, intermediis ovatis, labello maximo, concavo.* Stamina 4, *didynama, in labello declinata,* filamentis *basi distinctis,* antheris *bilocularibus, glabris, loculis divaricatis.* Cariopsides *disco carnoso inserti, glaberrimi.*

A greenhouse herbaceous plant, of a neat appearance, native of the neighbourhood of Port Jackson. It propagates by division of the roots, or by cuttings of the stem. Our drawing was made in Mr. Colvill's Nursery, in September 1826.

Stems fleshy, pubescent. *Leaves* stalked, fleshy, roundish, rugose, coarsely crenated, with hirsute petioles. *Rachis* angular, downy. *Verticillastri* generally without bracteæ, few-flowered. *Flowers* small, pale purple. *Calyx* downy,

dotted with resin, gibbous beneath at the base, the upper segment roundish, ovate, the lower ones subulate, falcate upwards. *Corolla* with the upper segments roundish, the intermediate ovate, the labellum large and concave. *Stamens* 4, didynamous, declinate in the labellum; the *filaments* distinct at the base, the *anthers* 2-celled, smooth, with divaricating cells. *Cariopsides* inserted in a fleshy discus, quite smooth.

J. L.

CALOTHAMNUS villosa.

Villous Calothamnus.

POLYADELPHIA *ICOSANDRIA.*

Nat. ord. MYRTACEÆ.

CALOTHAMNUS Labillardière. —*Staminum* phalanges (4-5) petalis oppositæ (aliquæ nunc connatæ v. steriles). *Antheræ* basi insertæ integerrimæ. *Capsula* 3-locularis polysperma, connata et inclusa calycis tubo incrassato basi adnato (ramo). *Brown in Hort. Kew.* iv. 417.

C. *villosa;* floribus 5-fidis, phalangibus distinctis æqualibus polyandris, foliis adultis fructibusque villosis. *Brown l. c. Link. enum.* 2. 274. *Spreng. syst.* 3. 338.

Frutex *humilis, compactus.* Rami *teretes, cicatrizati, hirti.* Folia *filiformia, villosa, densissimè imbricata.* Flores *sessiles, congesti.* Ovarium *subrotundum, calyxque albo villosa.* Petala *subrotùnda, rubra, ciliata.* Staminum *phalanges polyandri, atrosanguinei, petalis multoties longiores.*

A native of the south-west coast of New Holland, where seeds were collected and sent to the Royal Garden at Kew, in 1803, by Mr. Peter Good. It is a fine hardy greenhouse plant, producing its rich crimson flowers in August and September. It grows well, but slowly, in peat, loam, and sand; and young cuttings root pretty freely in sand, under a bell glass, care being taken to keep the inside of the glass dry.

Calothamnus is beautifully distinguished from *Melaleuca* by having its anthers attached to the filament by their base, and not by their middle; and from *Beaufortia* by the apex of the anthers being entire, not bifid with deciduous lobes.

Our drawing was made at Mr. Colvill's Nursery, in August 1825.

A low, compact bush. *Branches* round, scarred, hairy. *Leaves* filiform, villous, very densely imbricated. *Flowers* sessile, heaped. *Ovarium* nearly round, and calyx villous with white hairs. *Petals* roundish, red, ciliated. *Bundles of stamens* polyandrous, dark blood-red, many times longer than the petals.

J. L.

Note upon *Geum coccineum*, fol. 1088.

Having communicated specimens of this plant to Sir James Smith, he has been so obliging as to compare them with Sibthorp's specimens and the figure 485 of the Flora Græca. The result of this examination, we are informed by Sir James Smith, is that the plant figured at fol. 1088, and the *Geum coccineum* of the Flora Græca are identically the same. The doubts thrown upon the subject by the synonym of Balbis, and the presence of the plant in Chile, are therefore removed; and it only now remains to ascertain how the species found its way into the latter country.

1100.

del. Ridgway 169 Piccadilly Watts sc.

CLARKIA pulchella.

Pretty Clarkia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRARIÆ — capsulares.

CLARKIA Pursh. — *Calyx* superus, 4-partitus, laciniis reflexis: tribus cohærentibus. *Petala* 4, unguiculata, cruciata, triloba, æstivatione convolutivâ. *Stamina* 8, alterna sterilia, fertilibus calycis laciniis oppositis; *antheris* post anthesin gyràtim recurvis. *Stigma* 3-4-lobum, laciniis petaloideis. *Capsula* sulcata, 3-4-locularis, apice 3-4-valvis, seminibus angulatis serie simplici ascendentibus.——Herba *annua* (Americæ temperatæ occidentalis). Habitus *Epilobii.* Petala *et* stigmata *foliaceo-dilatata.*

C. pulchella. *Pursh. fl. Am. sept.* 1. 260. *t.* 11. *Nuttall gen. Amer. sept.* 1. 249.

Annua. Caulis *teres,* 1½-*pedalis, simplex, supernè ramosus, pubescens.* Folia *lineari-lanceolata, glabriuscula, ultimis filiformibus, pubescentibus.* Racemi *terminales, corymbosi.* Calyx *superus hypocrateriformis, tubo brevi, limbo 4-partito, laciniis linearibus, reflexis, æstivatione valvatis, dimidio superiore cohærentibus, hinc fissis, tubo multò longioribus, extùs leviter pubescentibus, intùs rubescentibus.* Petala 4, *fauce tubi inserta, laciniis calycis alterna, unguiculata, patentia, calyce triplò longiora, intensè rosea, ungue utrinque unidentato, laminâ 3-partita, venosa: laciniis obtusis; intermediâ duplò latiore, apice subdentatâ, æstivatione convolutiva.* Stamina 8, *fauce tubi inserta, æstivatione erecta, alteris fertilibus laciniis calycis oppositis; alteris sterilibus basi petalorum insertis;* fertilia *filamentis filiformibus, roseis, quàm ungues petalorum brevioribus, antheris flavis, linearibus, innatis, bilocularibus, loculis longitudinaliter dehiscentibus, post anthesin gyratim recurvis; sterilia unguibus petalorum breviora filiformia clavata.* Pollen *angulatum, album, non arachnoideum.* Ovarium *fusiforme, sex-octosulcatum, pubescens, 3-4-loculare, polyspermum, ovulis rhomboideis, ascendentibus, serie simplici axi affixis, apice cristatis virescentibus (loco chalazæ).* Stylus *filiformis, roseus, glaber, staminibus longior.* Stigma 3-4-*lobum, laciniis albis, petaloideis, oblongis, integris, superficie papillosâ, æstivatione in capitulum convoluta.* Capsula *cylindracea, sulcata,* 3-4-*locularis, apice* 3-4-*valvis, seminibus simplici serie ascendentibus.* Semina *rhomboidea, velutina, marginibus breviter fimbriatis.* Testa *mollis.* Embryo *exalbuminosus;* cotyledonibus *crassis, carnosis,* radiculâ *inferâ, brevi, conicâ.*

Lately introduced by the Horticultural Society from the north-west coast of North America, where it was found

in great abundance by Mr. David Douglas, in all the districts about the river Columbia. It is a hardy annual, requiring no care in its cultivation, growing to the height of one and a half or two feet, and producing its singular bright rose-coloured blossoms from May to September.

Whether we consider the facility with which it can be managed, the curious and very unusual conformation of the petals, stamens, and stigma, or the brilliancy of its colours, this must be pronounced to be by far the most remarkable hardy annual that has lately been introduced, except the Coreopsis tinctoria.

The genus was originally established by Pursh, with a figure and very meagre description, in the Flora Americæ Septentrionalis. The characters of Pursh were adopted, almost without alteration, by Mr. Nuttall, who had only seen dried specimens. Professor Sprengel appears to have wholly omitted it in his Systema. Its 3-lobed petals, 4 abortive stamens, and petaloid stigma, abundantly distinguish it from Œnothera and Epilobium, its nearest co-ordinates. We have spelt it Clarkia, with Mr. Nuttall, rather than Clarckia, as it is written by Pursh, because it was named in honour of Captain Clarke, the companion of Captain Lewis in his journey up the Missouri.

J. L.

AMPHODUS ovatus.

Ovate-leaved Amphodus.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ. Tribus *Phaseoleæ* Decandolle.

AMPHODUS. — *Calyx* ebracteatus, basi intrusus, bilabiatus, labio superiore bidentato, inferiore 3-fido, laciniis subulatis. *Corollæ* vexillum reflexum, basi bidentatum, dentibus inflexis staminis decimi basin retinentibus. *Alæ* et *carina* lineares. *Stamina* diadelpha. *Stylus* filiformis glaber. *Stigma* capitellatum. *Legumen* lineare compressum polyspermum, (immarginatum?) *Semina* spherica hilo lunato. —— Frutex *volubilis* (Americæ æquinoctialis). Folia 3-*foliata,* foliolis *stipellatis.* Flores *rubri.* Racemi *multiflori axillares.*

Amphodus ovatus.

Caulis *angulatus, pilosus, volubilis.* Folia 3-*foliolata;* stipulis *semiovatis, pubescentibus, rufo-marginatis;* stipellis *subulatis, parvis;* petiolo *pubescente;* foliolis *ovatis, obtusis, emarginatis, inæqualibus, utrinque pilosis, lateralibus subsessilibus.* Racemi *axillares, foliis breviores, sericei.* Bracteæ *ovatæ, deciduæ.* Bracteolæ *nullæ.* Pedicelli *patentes, circà florum longitudine, apice clavati.* Calyx *campanulatus, sericeus, basi intrusus, bilabiatus, labio superiore recto, ovato, bidentato, inferiore 3-partito, laciniis acuminatis, subæqualibus.* Corolla *atropurpurea, vexillo oblongo, revoluto, basi sulcato, utrinque versùs basin unidentato, dentibus inflexis filamentum staminis decimi retinentibus.* Alæ *et* carina *lineari-oblongæ, vexillo longiores.* Stamina *diadelpha, decimo libero.* Stylus *filiformis, glaber.* Stigma *minimum, capitellatum.* Legumen *immaturum, falcatum, hirsutum, longè acuminatum, polyspermum, immarginatum.* Semina *atra, sphærica, hilo pallido lunato.*

A native of Trinidad, whence seeds were obtained by Lady Hulse, of West Heath, in Kent, in 1824. For the opportunity of making our drawing we are obliged to Mr. William Anderson, under whose care the plant blossomed in the Apothecaries' Garden, at Chelsea, for the first time, in April 1827.

A tender stove-plant, like all similar climbers, requiring a rafter or a wire to twine round. It is not remarkable for its beauty; but is very interesting to the Botanist, on account of its deviation from the structure of all known genera.

Following the principles adopted by M. Decandolle, in

subdividing the old genus Dolichos, we find ourselves compelled to assign to this plant a distinct station. From Dolichos, as now limited, it differs in having no bracteolæ to the calyx, which is also distinctly 2-lipped; in the figure of the vexillum and carina; in the smoothness and filiform, not compressed, figure of the style; and, probably, also in the internal structure of the legumen,—but from want of ripe fruit we are not sufficiently certain of this point. From Vigna of Savi, it is distinguished by the linear-oblong, not rhomboid, form of the alæ, a very important circumstance; by the division of the upper lip of the calyx; by the flatness of its pods; and by the want of a beard on the stigmà (qu. style?). From Lablab, by nearly all the characters adverted to as distinctive of Dolichos. From the other genera, separated from Dolichos, its differences are sufficiently obvious, with the exception of Dioclea. To this it is much more closely allied than to any other, differing chiefly in the absence of bracteolæ from the calyx, in the presence of two inflexed teeth near the base of the vexillum, which confine the filament of the tenth stamen, in the form of the base of the calyx, and, perhaps, also in the margin of the legumen. In habit it nearly resembles the Dolichos ruber of Jacquin, which is a spècies of Dioclea.

Stem angular, hairy, twining. *Leaves* with 3 leaflets; *stipules* half ovate, pubescent, bordered with rufous hairs; *stipella* subulate, small; *petiole* downy; *leaflets* ovate, obtuse, emarginate, unequal, hairy on each side, the outer ones nearly sessile. *Racemes* axillary, shorter than the leaves, silky. *Bracteæ* ovate, deciduous. *Bracteolæ* none. *Pedicels* spreading, about as long as the flowers, clavate at the apex. *Calyx* campanulate, silky, pushed inwards at the base, 2-lipped, the upper lip being straight, ovate, 2-toothed, the lower 3-parted, with acuminate, nearly equal, segments. *Corolla* dark-purple, with an oblong, revolute vexillum, furrowed at the base, and having on each side, near the base, a tooth, which is bent inwards, and enfolds the bottom of the filament of the tenth stamen. *Alæ* and *carina* linear-oblong, longer than the vexillum. *Stamina* diadelphous, the tenth being quite free. *Style* filiform, smooth. *Stigma* very small, capitellate. *Pod*, when unripe, falcate, hirsute, with a long point, many-seeded, without any distinct margin. *Seeds* dark, spherical, with a pale lunate hilum.

The name has been formed from two Greek words, signifying "a tooth on each side," in allusion to the peculiar processes of the base of the vexillum. J. L.

1102

VERBENA paniculata.

Panicled Vervain.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. VERBENACEÆ.
VERBENA. *Suprà, vol. 4. fol.* 294.

V. *paniculata;* caule scabro, foliis petiolatis ovato-lanceolatis acutis inæqualiter serratis subtùs venoso-reticulatis, spicis filiformibus corymboso-paniculatis floribus imbricatis.

V. paniculata. *Lam. encycl.* 8. 548. *Pursh fl. Am. sept.* 2. 416. *Nutt. gen. Amer.* 2. 40. *Spreng. syst.* 2. 748.

Caulis *erectus, ramosus, quadratus, striatus, scaber.* Folia *scaberrima, ovato-lanceolata, inæqualiter (nec grossè) serrata, acuta, subtùs venis prominentibus reticulata.* Spicæ *filiformes, flexuosæ, nudæ, 4-5-uncias longæ, corymboso-paniculatæ.* Flores *densè imbricati, in dentibus racheos sessiles.* Bracteæ *rigidæ, subulatæ, scabræ, calycibus breviores, basi vaginantes.* Calyx *tubulosus, 5-plicatus, 5-dentatus, dentibus minutis, subinæqualibus.* Corolla *hypocrateriformis, collo tubi extùs pubescente, limbo atro-cæruleo, ore intensiore, laciniis obtusis.* Stamina 4, *breviter pedicellata.*

A hardy perennial, native, according to Pursh, of the natural meadows of the high mountains of Virginia and Carolina, where it flowers during July and August, growing from 4 to 6 feet high. Our drawing was made at the Nursery of Messrs. Whitley, Milne, and Co., in September 1826.

Pursh was evidently well acquainted with this plant, which seems to have been considered doubtful by Mr. Nuttall, who asks (*gen.* 2. 40.) whether his V. *hastata* β. *oblongifolia* may not be V. paniculata; adding, " but the flowers are not imbricated, nor in the least corymbose." It is obvious, from our figure and description, that the plant had been rightly described in both these respects. In fact, V. paniculata is as distinct from all other Verbenas as V. bonariensis itself.

This is not a very handsome species, and our chief motive for publishing it has been for the sake of clearing up the obscurity which has been supposed to attend it. It has not been before figured.

Stem erect, branched, square, striated, rough. *Leaves* very rough, ovate-lanceolate, unequally serrated, acute, reticulated with projecting veins beneath. *Spikes* filiform, flexuose, naked, 4-5-inches long, in corymbose panicles. *Flowers* densely imbricated, sessile in the teeth of the rachis. *Bracteæ* rigid, subulate, scabrous, shorter than the calyxes, and sheathing at the base. *Calyx* tubular, with 5 plaits, and 5 minute, unequal teeth. *Corolla* hypocrateriform; the neck of the tube downy outside; the limb dark blue, with a deeper-coloured eye, and obtuse segments. *Stamens* 4, on short filaments.

J. L.

JACARANDA tomentosa.

Downy Jacaranda.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. BIGNONIACEÆ.
JACARANDA. *Suprà, vol.* 8. *fol.* 631.

J. *tomentosa;* foliis bipinnatis tomentosis: foliolis ovato-rhomboideis acutis, calycibus corollisque pubescentibus.

Frutex *subdeciduus.* Folia *bipinnata, tomentosa: foliolis imparibus, ovato-rhomboideis, acutis, valdè inæqualibus, inferioribus minimis, rotundioribus.* Pedunculi *axillares, triflori, tomentosi, bracteolati.* Calyx *campanulatus, basi obtusus, 5-dentatus; dentibus brevibus, ovatis, æqualibus.* Corolla *atropurpurea, extùs pubescens, tubo brevi calyce duplò tantum longiore, limbo tubuloso-campanulato,* 1½ *unciam longo, arcuato, laciniis retusis, subæqualibus, maculâ pallidâ sub labio superiore.* Stamina 4, *didynama, quinto sterili, filiformi, subclavato, limbi ferè longitudine, barbato;* filamenta *glabra, basi intùs pilis glandulosis obsita;* antheræ *biloculares, loculis divaricatissimis, basi acuminatis.* Pollen *fuscum, sphæricum, costis tribus cinctum, undè quasi trigonum.*

Seeds of this fine new species were sent from Mexico, by Sir Thomas Hardy, to Lady Admiral Campbell, by whom they were presented, with many other interesting plants, to Messrs. Whitley and Co., in whose Nursery, at Fulham, our drawing was made in June last. As it is a half-deciduous shrub, it is probable that, although it has hitherto been kept in the stove, it will be hardy enough to succeed in a conservatory, of which it would be a noble ornament.

We presume that well-ripened leafy cuttings will root freely in sand, under a hand-glass, with a little gentle heat.

The pollen of this plant may perhaps be considered explanatory of that form which, although spherical, seems,

nevertheless, from three projecting dots on its sides, to have a triangular appearance. Under a powerful lens, it will be distinctly seen that these three seeming dots represent three vertical projecting ribs, by which the pollen is banded, very much as the capsules of some Orchideæ.

Leaves bipinnate, downy; leaflets with an odd one, ovate-rhomboid, acute, very unequal; the lower ones very small, and rounder than the others. *Peduncles* axillary, 3-flowered, downy, with little bracteolæ. *Calyx* campanulate, obtuse at the base, 5-toothed; teeth short, ovate, equal. *Corolla* dark-purple, downy externally, with a short tube, not more than twice the length of the calyx; limb tubular-campanulate, 1½ inch long, arcuate, with retuse, nearly equal segments, and a pale spot under the upper lip. *Stamens* 4, didynamous, the fifth being sterile, filiform, subclavate, nearly as long as the limb, and bearded; *filaments* smooth, with a few glandular hairs at the base; *anthers* 2-celled, with very spreading cells, which are acuminate at the base. *Pollen* fuscous, spherical, confined by three projecting bands, whence it seems as if 3-cornered.

J. L.

1104

MALACHODENDRON ovatum.

Ovate-leaved Malachodendron.

POLYADELPHIA *PENTAGYNIA.*

Nat. ord. TERNSTRÖMIACEÆ *Decand.*

MALACHODENDRON Cav. *Calyx* 1-bracteatus. *Petala* 5-6, limbo crenulato. *Ovarium* 5-sulcatum. *Styli* 5, à basi liberi. *Stigmata* capitata. *Carpella* capsularia, 5, connexa, 1-sperma. *Semina* ignota. *Decand. prodr.* 1. 528.

Malachodendron ovatum. *Cavanilles dissert.* 5. 302. *fig.* 2. *Decand. l. c. Spreng. syst.* 3. 126.

Stewartia pentagyna. *L'Hérit. stirp. nov.* 1. *p.* 155. *t.* 74. *Smith, exot. botany,* 101. *Hort. Kew. ed.* 2. 4. 234.

Folia *ovato-oblonga, acuminata, serrata, v. integra, suprà glabra, infrà pallida, reticulato-venosa, costâ pilosâ.* Flores *magni, albi, petalis cochleatis, margine crispis, incisis, extùs sericeis.* Ovarium *lanatum.* Styli 5, *distincti.*

A very noble hardy shrub, seldom met with in gardens, although its large white or cream-coloured flowers render it extremely desirable. It is a native of the mountains of Carolina and Georgia, where it flowers during the months of August and September.

Count Hoffmannsegg asserts that the name of this genus should be written Malacodendron, and not Malachodendron; supposing, it would seem, that it is derived from μαλακος, soft: it is, however, better to consider μαλαχη, a mallow flower, to be the root of the word, in which case the common orthography will be correct.

Leaves ovate-oblong, acuminate, serrate, or entire, smooth above; pale, with a reticulated venation, and a hairy costa, beneath. *Flowers* large, white, with cochleate petals, which are crisp and cut at the edge, and silky on the outside. *Ovarium* woolly. *Styles* 5, distinct.

J. L.

1105

ROSA Banksiæ *lutea*.

Lady Banks's Yellow Rose.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. ROSACEÆ.
ROSA. *Suprà, vol.* 1. *fol.* 46.

Div. Banksianæ. *Stipulæ subliberæ subulatæ v. angustissimæ, sæpiùs deciduæ. Foliola sæpiùs ternata nitida. Caules scandentes.* Lindl. Ros. p. 125.
R. *Banksiæ;* ramis et fructibus inermibus. *Lindl. l. c. p.* 131.
α. floribus simplicibus (nondum detecta).
β. floribus plenis albis.
R. Banksiæ. *Brown in Ait. Kew. ed. alt.* 3. 258. *Smith in Rees in l. Botanical magazine, t.* 1954. *Suprà, fol.* 397. *Redout. ros.* 2. 43. *Poir. encycl. suppl. p.* 716. *Trattin. synod. vol.* 2. 212. *Lindl. mon. ed. gall. p.* 128. *Decand. prodr.* 2. 601. *Spreng. syst.* 2. 556.
R. inermis. *Roxb. Hort. Beng. p.* 38.
γ. floribus plenis luteis.

The first indication of the existence of this rose is to be found in a note to the 38th page of the Hortus Benghalensis, in which it is stated that there exist two varieties of Rosa inermis of Roxburgh, namely, the double white, called by the Chinese *Pah-mo-li,* and the double yellow, called by the same people *Wong-mo-ne-he-vong.* The next allusion to it is made at page 131 of the Monograph of Roses, above quoted, at which time the Hortus Benghalensis was overlooked; and the same information was given from Roxburgh's manuscripts, then in the Banksian library; with this variation, however, that the Chinese name was spelt somewhat differently from that printed in the Hortus Benghalensis: the latter authority is the better of the two. The attention excited by the intelligence thus communicated, led to special directions, on the part of the Horticultural Society, to Mr. John Damper Parks, who was

sent to China in 1823, to omit no opportunity of securing this valuable variety, in which he was so fortunate as to succeed, having brought home several plants with him, upon his return in the Lowther Castle East Indiaman, in 1824.

This kind proves, upon the whole, to be a more desirable plant than the white variety, having, indeed, a less fragrant perfume, but bearing flowers in greater abundance, and more freely, in being rather more hardy, and in its leaves being of a deeper and richer green; they are also more elliptical and obtuse than those of the first variety.

Cultivated with ease when trained against a wall, where it flowers during April and May. It strikes readily from cuttings, and will probably prove a good stock for budding other roses upon. It often makes, during the summer, shoots 7 or 8 feet long, quite free from branches.

Our drawing was made in the Garden of the Horticultural Society, in May last.

Difficult as the genus Rosa has proved to all Botanists, and numerous as have been the inevitable errors into which every writer upon the subject has fallen, we should, nevertheless, have supposed that the history of a species so very distinct as this, and so little exposed to the chances of inaccuracy, might have, at least, been preserved from absolute mistatements; these, however, seem to be contagious among Roses. Mr. Trattinnick asserts, upon the authority, as he says, of the Banksian Herbarium, that the fruit of R. Banksiæ is round and black: but the fruit does not exist in the Banksian Herbarium, and has never yet been seen by any European Botanist; there is, therefore, no authority whatever, as we believe, for stating that either its figure or colour are known. M. Seringe, however, copies this assertion of the German Botanist, without remark, in his arrangement of Rosa, in the second volume of M. Decandolle's Prodromus, and even makes these imaginary properties form a part of the specific character! Alas! poor Rosa!

J. L.

S. Watts sc

TULIPA montana.

Crimson Mountain Tulip.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Liliaceæ.
TULIPA. Suprà, vol. 3. fol. 204.

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§. *Bulbi induviis intùs lanatis.*

T. *montana;* caule folioso unifloro, foliis oblongo-lanceolatis canaliculatis acuminatis undulatis glaucis: superioribus linearibus, perianthii foliolis ovatis acutis planis.

Bulbi *ovati, ovi columbini magnitudine, castanei, induviis apice lanugine densissimâ tectis.* Caulis *teres, uniflorus, foliosus, glaucus, palmaris.* Folia *valdè glauca, inferiora oblongo-lanceolata, acuminata, subundulata, canaliculata; superiora linearia, plana, acuminatissima, floribus breviora.* Perianthium *intensè puniceum, ovale, foliolis* 1½ *unciam longis, ovatis, planis, acutis.*

A native of the mountains of Persia, whence a few roots were procured for the Horticultural Society, by Sir Henry Willock. They were received in 1826, and flowered in April last, in the Garden of the Society, where our figure was taken.

A beautiful hardy bulb, very distinct from any previously described: the colour of the blossoms is, perhaps, more brilliant than that of any other flower of the season.

The Tulips will readily separate into two well-marked sections, characterised by the absence or presence of wool from the integuments of the bulbs. To the section represented by this species belong T. oculus-solis, stellata, and others; Tulipa gesneriana, sylvestris, &c. to the section in which the bulbs have no wool.

Bulbs ovate, about as large as a pigeon's egg, of a chestnut colour, their coats densely covered with down

at the apex. *Stem* terete, one-flowered, leafy, glaucous, about a span high. *Leaves* very glaucous, the lower oblong-lanceolate, acuminate, somewhat wavy, channelled; the upper linear, flat, very much acuminated, shorter than the flowers. *Perianthium* deep crimson, oval, the leaflets an inch and half long, ovate, flat, acute.

J. L.

1107

S. Watts sc.

COLLINSIA grandiflora.

Large-flowered Collinsia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ.
COLLINSIA. *Suprà, fol.* 1082.

C. *grandiflora;* caule erecto ramoso, pedunculis verticillatis floribus brevioribus, corollæ laciniis dilatatis retusis, calyce glabro corollâ duplò breviore.

C. grandiflora. *Suprà, fol.* 1082 *in textu, sine charactere.*

Caulis *erectus, ramosus, palmaris pedalisve, pubescens.* Folia *inferiora spatulata, superiora oblongo-linearia, glaberrima, nunc integerrima, nunc denticulata.* Flores *verticillati, numerosi, speciosissimi.* Pedunculi *glabri, filiformes, floribus duplò brevioribus.* Calyx *glaber, laciniis acuminatissimis, quasi aristatis, corollâ duplò brevioribus.* Corolla *tubo et labio superiore pallidè purpureis, inferiore intensè cyaneo, laciniis dilatatis, crenulato-crispis, retusis, inferiore mediâ minutâ.* Obs. *in icone, errore pictoris, margo corollæ integer pro crenulato-crispo malè supponitur.*

One of the most beautiful hardy annuals with which we are acquainted, covering the ground with a carpet, as it were, of blue, and purple, and white, during the months of June and July.

A native of the dry banks of the Columbia river, at the distance of an hundred miles and more from the ocean, in which situations its seeds were gathered by Mr. Douglas, and transmitted to the Horticultural Society, in whose garden our drawing was made in June last, when it flowered for the first time.

We learn from the enterprising traveller to whom we are indebted for this and a multitude of equally important plants, and whose safe return to England, after surmounting perils and fatigue of no common kind, we are truly

happy to announce,—that the species published at folio 1082 of the present volume is confined to the rocks in the vicinity of the ocean; while the subject of this article is found in the situations above described; and the plant figured by Nuttall, in the Journal of the Academy of Natural Sciences of Philadelphia, as his Collinsia verna, is chiefly produced upon inland rocks.

Of the last-mentioned plant, Mr. Douglas gathered an abundance of specimens, from which, and the figure above referred to, it appears that C. verna is distinguished by its stems being much less branched than those of C. grandiflora, by its peduncles being longer than the flowers, its calyxes downy, with much less finely pointed divisions, and shorter in proportion to the flower, and the segments of the flower, which is far less beautiful, being blunt only, not dilated and retuse. The margin, moreover, of the corolla of C. grandiflora is always crisp, or even toothletted,—a character which our artist has omitted in the figure; while that of C. verna possesses this peculiarity in a very slight degree. The corolla of C. verna is white in the parts which are purple in C. grandiflora.

The specific character of C. parviflora, as given above, at fol. 1082, may be contrasted better with that of the two other species. We therefore subjoin it in an amended form, along with that of C. verna.*

Stem erect, branched, 6 inches or a foot in height, pubescent. The lower *leaves* spatulate, the upper oblong-linear, smooth, sometimes entire, sometimes toothletted. *Flowers* whorled, very numerous, and shewy. *Peduncles* smooth, filiform, twice as short as the flowers. *Calyx* smooth, with very finely pointed segments, which appear as if aristate. *Corolla* with the tube and upper lip purple, the lower intensely blue; the segments dilated, crisp in a crenulate way at the margin, retuse; the lower intermediate one being very small. J. L.

* C. *parviflora;* caule prostrato, pedunculis axillaribus solitariis floribus multò longioribus, corollæ laciniis subacutis integris, calyce pubescente corollæ subæquali.

C. *verna;* caule erecto subramoso, pedunculis verticillatis floribus longioribus, corollæ laciniis obtusis, calyce pubescente.

1108

Piccadilly Nov 1. 1827

S Watts

MAURANDIA Barclaiana.

Mr. Barclay's Maurandia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ.

MAURANDIA Jacq.—*Calyx* profundè 5-partitus, subæqualis. *Corolla* personata calyce longior; tubo supernè ventricoso-ampliato; labio superiore bi-, inferiore trifido; laciniis subæqualibus. *Stamina* 4, didynama, inclusa. *Antheræ* loculis divaricatis. *Stigma* clavato-capitatum. *Capsula* bilocularis, apice dentibus decem dehiscens.——Herbæ *scandentes.* Folia *alterna cordato-hastata.* Flores *axillares solitarii violacei.* Kunth. synops. 2. 121.

M. *Barclaiana;* corollâ fauce hiante, calycibus glanduloso-pubescentibus.

Suffrutex *scandens, caulibus filiformibus, teretibus, striatis, glabris.* Folia *alterna, longè petiolata, angulata, cordata, acuminata, utrinque glaberrima; junioribus subsagittatis: petiolis foliis longioribus, volubilibus.* Flores *axillares, solitarii, pedunculis filiformibus, glabris, foliis longioribus.* Calyx *5-partitus, undique pilis longis, glandulosis obsitus; laciniis longè acuminatis, æqualibus, tribus superioribus ascendentibus, 2 inferioribus tubo suppositis.* Corolla 3 *uncias longa, atropurpurea, extùs pubescens, intùs glaberrima, tubuloso-campanulata, personata, labio superiore bilobo: laciniis transversis rotundatis; inferiore trilobo: lobis ovatis rotundatis intermedio minore; palato plicato, prominente; fauce perviâ; tubo virescente, basi antice saccato.* Stamina 4, *didynama, versùs basin tubi inserta, inclusa.* Filamenta *basi dilatata, villosa, apice clavata uncinata, facie et dorso pilis glandulosis luteis cristata.* Antheræ *glabræ, biloculares, loculis æqualibus divaricatis.* Ovarium *ovatum, basi obliquum, apice glandulosum, biloculare, placentis magnis carnosis, ovulis undique tectis.* Stylus *filiformis, ascendens.* Stigma *parvum, obscurè bilobum.* Fructus immaturus, *quem tantùm vidi, est capsula ovata, obtusa, papyracea, stylo rostrata, bilocularis, polysperma.* Semina *immatura testam habent suberosam, in plurimos lobos valdè inæquales divisam, quorum maximi ad dorsum et latera. Horum* contextus cellulosus *quàm maximè singularis et quantum scio inauditus; è cellulis constat radiantibus primùm subrotundis dein fusiformibus, parietibus reticulatîs! è lineis decussantibus per membranam cohærentibus, adeo ut facies cellularum omninò complexum vasorum spiralium decussantium simulat.*

This beautiful climber is a native of Mexico, whence seeds of it were received by Robert Barclay, Esq., to

whom we are indebted for the opportunity of publishing it, and after whom we have named it, as a tribute to the zeal and almost unparalleled success with which he has devoted his attention to the introduction of new plants.

We learn from Mr. Cameron, to whose care Mr. Barclay's invaluable collection has long been confided, that it is a climbing shrub, supporting itself by the footstalks of its leaves, like the two other species of the genus. At the time our drawing was made, the plant was about six feet high, and growing in the open border; but as it had been trained to some pea-sticks, among which it had become entangled, it is probable that the length of its stem exceeded considerably the height it had attained. In the middle of October it was still covered with flowers, and had every appearance of continuing in beauty till the frosts should destroy it. This being the first season of its cultivation, nothing is known of its capability of resisting cold; it is probable, however, that it will require the protection of a green-house in winter, and it is certain that it will be a hardy border-flower during the summer. It strikes from cuttings less freely than the other two species.

We presume there can be no doubt of this being a genuine species of Maurandia; a point which cannot be absolutely determined without an inspection of ripe fruit. The immature capsules, which we have inspected, did not appear different from those of Maurandia semperflorens of the same age.

There is one peculiarity in this plant which, although extremely obscure, requires to be particularly pointed out: we do not know whether it exists in the other species or not; but it is so remarkable, that we trust we shall be excused for describing it somewhat minutely. The testa of the unripe seed is of corky consistence, and divided into numerous very unequal compressed lobes, which are largest at the back and edges. If one of these lobes be divided vertically, and placed under a powerful microscope, it will exhibit the appearance of bundles of interlaced spiral vessels, forming ducts from the inner substance of the testa to the apex of the lobes. These are, to all appearance, so extremely like spiral vessels, that if it were not known that those curious organs are never found under such circumstances, an observer would be led to consider the

lobes composed of them. But as it would be contrary to all experience to find spiral vessels radiating at right angles from the testa, and constituting the whole substance of its lobes, a more minute examination is necessarily suggested. And upon dissecting the tissue very carefully, it is seen that these apparent bundles of spiral vessels are cellules of a kind hitherto unobserved. They are of various sizes and figures, varying from nearly spherical to fusiform, and possessing all intermediate forms. The smallest are nearly round, composed of a net-work, the meshes of which, from their proximity to each other, are almost undistinguishable. In this state the cellule appears to be formed of spiral threads, crossing each other, and interlaced from the base to the apex. But in the larger cellules, which have become lengthened out from a round to a fusiform figure, the meshes are distinctly visible, as they would be in a round, closely-netted, elastic purse, pulled out to its utmost length; in this state it is also apparent that the meshes are connected by a membrane,—a character which could not be ascertained in the small cellules. This kind of tissue, which has never before been described, we propose to call *reticulated cellular tissue:* its functions are wholly unknown; and from the excessive minuteness of its cellules, more than 200,000 of which would be required to cover a square inch, they are not likely soon to be discovered. There is no doubt, however, that this singular deviation from the usual structure of the elementary organ of plants has not been contrived without some wise end in view.

Leaves alternate, on long stalks, angular, cordate, acuminate, quite smooth on each side; the younger somewhat sagittate: *petioles* longer than the leaves, twining. *Flowers* axillary, solitary, with smooth, filiform peduncles, longer than the leaves. *Calyx* 5-parted, covered all over with long glandular hairs; the segments with long points, of equal size, the three upper ones ascending, the two lower placed below the tube. *Corolla* about 3 inches long, deep purple, downy on the outside, quite smooth inside, tubular-campanulate, personate; the upper lip with two transverse rounded lobes, the lower with three roundish ovate divisions, of which the middle one is the narrowest; palate plaited, prominent; throat pervious; tube greenish, saccate at the base, in front. *Stamens* 4, didynamous, inserted

towards the base of the tube, included. *Filaments* dilated, and villous at the base, clavate and hooked at the apex, the back and front of which are clothed with bright yellow glands. *Anthers* smooth, 2-celled, with equal, divaricating cells. *Ovarium* ovate, oblique at the base, glandular at the apex, 2-celled, with large fleshy placentæ, covered over with ovula. *Style* filiform, ascending. *Stigma* small, obscurely 2-lobed.

J. L.

NOTE upon *Amphodus ovatus*, fol. 1101.

Since the above article was published, we have been supplied by Mr. Anderson with a ripe pod, which will enable us to complete and, in some measure, correct our account of the genus Amphodus.

Legumen lineari-oblongum, compressum, apterum, immarginatum, polyspermum, extùs tomentosum, intùs isthmis membranaceis, è contextu laxo cellulari, epidermoidali simillimo, constructis, è suturâ placentæ oppositâ ortum ducentibus. *Semina* oblonga, compressa (in icone erronea), viridi-fusca, immaculata, pedicellata. *Hilum* parvum, lineare, arillo albo, crasso circumdatum. *Testa* coriacea, integumento interiore, s. endopleura, crasso, carnoso, albo. *Embryo* cotyledonibus carnosis, oblongis, radiculâ obtusâ, inflexâ.

Pod linear-oblong, compressed, neither winged nor margined, many-seeded, on the outside tomentose, in the inside separated into many spurious cells, by means of processes formed of very thin, lax, cellular tissue, like that of the epidermis, which take their rise from points of the suture opposite to that which bears the seeds. *Seeds* oblong, compressed, greenish-brown, not spotted, on short stalks. *Hilum* small, linear, surrounded by a white, fleshy arillus. *Testa* coriaceous, its inner integument, or endopleura, being thick, white, and fleshy. *Embryo* with oblong, fleshy cotyledons, and an obtuse, inflexed radicle.

From this it will appear that the distinctions between Amphodus and Dioclea are much greater than we even supposed them to be; its affinity being in fact greater to Dolichos, notwithstanding the differences of its calyx, corolla, and style.

J. L.

1109.

N°. 49. Piccadilly Nov. 1. 1827.

LUPINUS bicolor.

Two-coloured Lupine.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ.
LUPINUS. *Suprà, vol. 6. fol. 457.*

L. *bicolor;* annuus, caule ramoso corymboso foliisque sericeo-pilosis, foliolis 5-7 lineari-spatulatis, verticillis paucifloris, calycibus sericeo-lanatis inappendiculatis: labio superiore bifido, inferiore elongato integro, alis vexillo longioribus, leguminibus polyspermis.

Annuus. Caulis *ramosus, diffusus, corymbosus, teres, pedalis, pilis longis sericeus.* Folia *digitata, sericeo-pilosa, stipulis liberis, subulatis, foliolis 5-7, lineari-spatulatis, vix unciam longis in maximis.* Flores *verticillati, verticillis longè pedunculatis, 3-4-floris, solitariis, rarò duobus tribusve, nunquam quantum vidi pluribus.* Bracteæ *subulatæ, deciduæ;* bracteolæ *nullæ.* Calyx *sericeo-lanatus, bilabiatus; labio superiore altè bifido, inferiore duplò longiore, integro.* Vexillum *ovatum, album, demùm rubropurpureum, lateribus reflexis.* Alæ *oblongæ, vexillo longiores;* carina *acuta, ad apicem tomento ciliata.* Legumen *lineari-oblongum, subfalcatum, polyspermum, torulosum, pubescens.* Semina *parva, viridi-fusco nubila, lineâ utrinque obliquâ atrâ.*

A pretty annual, not exceeding a foot in height, and flowering during nearly the whole summer, from the end of May to the beginning of October, during which period it produces a succession of blossoms. These are not so shewy as those of many other species, but they are exceedingly neat, the vexillum being pure white, and the alæ deep blue.

Found by Mr. Douglas, in the interior of the country about the Columbia river, from Fort Vancouver to the branches of Lewis and Clarke's river; always upon dry gravelly soils, especially under the shade of trees, in the open plains.

Our drawing was made in the Garden of the Horticul-

tural Society, in August last. It is propagated by seeds, which are produced in some abundance.

Annual. *Stem* branched, diffuse, corymbose, about a foot high, silky, with long hairs. *Leaves* digitate, silky, hairy, with distinct subulate stipules; *leaflets* 5-7, linear-spatulate, scarcely an inch long at the largest. *Flowers* whorled, the whorls on a long stalk, 3-4-flowered, solitary, rarely two or three, and never, as far as I know, in greater number. *Bracteæ* subulate, deciduous; *bracteolæ* none. *Calyx* between silky and woolly, two-lipped; the upper lip deeply bifid, the lower twice as long, and entire. *Vexillum* ovate, white, becoming reddish-purple, reflexed at the sides; *alæ* oblong, longer than the vexillum; *keel* acute, ciliated with down at the apex. *Pod* linear-oblong, somewhat falcate, many-seeded, torulose, pubescent. *Seeds* small, clouded with greenish-brown, having on each side a dark oblique line.

J. L.

GESNERIA Douglasii.

Mr. Douglas's Gesneria.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERIEÆ.
GESNERIA. *Suprà, vol. 4. fol.* 329.

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§. *Corollæ limbus erectus subæqualis. Glandulæ disci geminæ.* (DIPHYMA.)
G. *Douglasii;* herbacea, radice tuberosa, foliis in medio caulis verticillatis ovatis crenatis, cymâ terminali umbellatâ pedunculatâ, corollæ limbo subæquali, glandulis duabus superioribus dilatatis : inferioribus obliteratis. *Lindl. in Hort. Trans. VII.* (Oct. 1826.)
G. verticillata. *Bot. Mag.* 2776. (Oct. 1827.) *Non Cavanillesii.*

Tuber *magnum, carnosum, semisubterraneum, cortice griseo deglubente.* Caules *simplices, teretes, pubescentes, basi incrassati, purpurei.* Folia 6, *in medio caulis verticillata, petiolata, ovata, patentia, subsimpliciter crenato-serrata, utrinque lucida, pilosiuscula, ciliata. E medio verticilli eminet* pedunculus communis *teres, rubicundus, pubescens, caule paulò longior.* Cymus *magnus, multiflorus, patens, umbellatus, basi bracteis tot subulatis quot pedicelli.* Pedicelli *rubri, glabri, graciles, lucidi.* Calyx *inferus, limbo 5-partito, laciniis brevibus, ovatis, subæqualibus.* Corolla *tubulosa,* 1½ *uncialis, basi carnosa, gibbosa, pallidè rosea, subpubescens, undique maculis sanguineis interruptis v. continuis vittata et marginata;* limbo *suberecto, 4-partito, crispo,* sinubus *extùs gibbosis; labio superiore bilobo, lobis rotundatis imbricatis, inferiore 3-lobo, lobis æqualibus, ovatis, obtusis, ferè labii superioris magnitudine.* Stamina *basi tubi inserta, rudimento filamenti quinti.* Filamenta *filiformia, corollæ ferè longitudine.* Antheræ *cordatæ, cohærentes, glabræ, connectivo carnoso, diaphano, valvis rubro marginatis.* Glandulæ *ad basin corollæ 2, magnæ, ovatæ, luteæ : 3 inferioribus obliteratis.* Ovarium *maximâ parte superum, ovatum, acuminatum, breviter pilosum.* Stylus *cum ovario continuus, filiformis, arcuatus, roseus.* Stigma *capitatum, minutè papillosum, medio perforatum.*

This fine plant was found at Rio Janeiro, by Mr. Douglas, during a short stay in the autumn of 1824, and was sent by him to the Horticultural Society, in whose Garden the accompanying drawing was made in January 1825. It was first discovered beneath some palm trees,

at Mr. Dickson's farm, about five miles from Rio Janeiro, and afterwards in abundance at Tejuca.

In cultivation it forms an elegant, deciduous, herbaceous plant, flowering very freely for about two months, and afterwards dying down to the root. It requires the heat of the stove, and is propagated with great difficulty by its leaves.

It was named, in a paper read before the Horticultural Society in October 1826, and subsequently published in the Transactions of that body, in honour of "its indefatigable and intelligent discoverer," to whose single efforts in examining the rich vegetation of the countries lying in the vicinity of the river Columbia, amidst difficulties and dangers that would have appalled a less ardent mind, our gardens are indebted for an immense store of new and beautiful plants.

The following is the description of this species in the work above referred to.

From a fleshy, roundish root rise two or three purple, downy stems, which are naked, and incrassated at the base, and crowned about six inches from the ground with a whorl of five, six, or seven stalked, spreading, ovate, serrate-crenate, ciliated leaves, which are downy, with a fine gloss on each side. From the centre of these leaves is produced a purple, downy peduncle, rather longer than the stem, bearing a large, umbellate, many-flowered *cyme*. At the base of each ray of this cyme is a subulate bractea. *Pedicels* round, long, slender, smooth, and shining. *Calyx* inferior, with a five-parted limb, and ovate, nearly equal, short segments. *Corolla* tubular, half an inch long, fleshy and gibbous at the base, rather downy, of a pale pink colour, striped and bordered with numerous blood-red interrupted or continuous spots; its limb is crisp and nearly erect, the upper lip two-lobed, with rounded, imbricated lobes; the lower three-lobed, with equal, ovate, obtuse segments, about the same size as the upper; the recesses of the divisions of the limb are gibbous externally. *Filaments* smooth; *anthers* cordate, cohering, smooth. *Glands* at the base of the ovarium, two, large, ovate, yellow, on each side of the upper division of the calyx. *Ovarium* almost wholly superior, downy. *Style* continuous with the ovarium. *Stigma* capitate, minutely papillose, perforated in the middle.

The genus Gesneria, as it at present stands, contains an assemblage of plants differing so much among each other, both in habit and parts of fructification, that it is probable a careful investigation of the species will lead to the establishment of more than one new genus. We are by no means in possession of sufficient materials to undertake such a task in the manner it deserves; but it may not be useless to offer a few remarks upon the subject, for the consideration of those who are more fortunately circumstanced.

If the red tubular-flowered Brazilian species be taken as the most legitimate representatives of the genus, which, perhaps, would be most convenient, although in some respects open to objection,—the peculiar character of Gesneria would consist in a straight, tubular, half-superior corolla, with a gibbous base, and an early equal, erect limb, and in the presence of 5 unequal glands, alternating with the teeth of the calyx. From these, G. bulbosa will be found to vary in having a bilabiate corolla, with the lower lip minute and revolute; and G. Douglasii, in having only the two uppermost of the five glands present. It would not, perhaps, be advisable, upon such grounds, to distinguish these species from Gesneria; but, as sectional characters, the peculiarities just noticed appear to be unobjectionable.

But besides these two deviations from the normal structure of Gesneria, there are some others of a much higher degree of importance. The most remarkable of these exists in the G. prasinata, figured at folio 428 of this work, which, along with G. tomentosa of Linnæus, may be distinguished by the corolla having a campanulate, inflated faux, and a nearly equal limb, with revolute segments; and in the 5 glands of Gesneria being converted into a 5-toothed annular nectariferous discus. This genus may be named CODONOPHORA.* There are also some strong peculiarities in the Gesneria ventricosa of Swartz: in this plant the corolla is entirely superior; its tube is arcuate, with a very obliquely bilabiate limb, and is scarcely at all gibbous at the base; the calycine segments are subulate and unequal, and the ripe fruit is strongly ribbed. For this we would propose the name of PENTARAPHIA.†

J. L.

* Sp. 1. Codonophora lanceolata. (*Gesneria tomentosa* L.)
2. Codonophora grandiflora. (*Gesneria prasinata* suprà.)

† Sp. 1. Pentaraphia longiflora. (*Gesneria ventricosa* Swartz.)

1111

CYANELLA odoratissima.

Fragrant Cyanella.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Asphodeleæ.

CYANELLA L. — *Perianthium* hexaphyllum, foliolis inæqualibus. *Stamina* sex, basi connata, infimo majore difformi declinato.

C. *odoratissima ;* foliis ensiformibus, racemo composito multifloro, perianthii laciniis subæqualiter patentibus.

Radix *oblonga, induviata, bis terve constricta.* Caulis *erectus,* (*an spontaneo decumbens?*) *teres, subramosus, flexuosus.* Folia *radicalia ensiformia, stricta, atro-viridia ; caulina lineari-lanceolata, acuminata.* Flores *odoratissimi, longè pedunculati, pedunculo infra medium bracteato.* Perianthium *roseum, laciniis oblongo-lanceolatis, venosis, directione subæqualibus.* Stamina *sex, hypogyna, filamentis basi in cyatho carnoso connatis.* Antheræ *luteæ, 5 superioribus collateralibus maculatis, poro apicis dehiscentibus, infimâ duplò majore declinatâ, immaculatâ.* Stylus *filiformis, declinatus.*

The flowers of this plant are highly odoriferous, at first of a deep rose colour, afterwards fading to a pale blush ; they appear in July and August. The species, being a native of the Cape of Good Hope, requires the treatment proper for bulbous plants from that country. It is not probable that it will succeed in the open air; for although a very few plants of the same description are tolerably hardy in very warm, dry situations, yet it is notorious that the greater part of those which have of late been so reputed, will not endure the ordinary severity of the winter season, even near London. It is proper to point out this fact, in order to guard the inexperienced against repeating experiments with rare plants, which have already been fairly tried without success.

Our drawing was made at Mr. Tate's Nursery, in Sloane Street.

Root oblong, with two or three contractions. *Stem* erect, (perhaps in a state of nature decumbent,) round, somewhat branched, flexuose. *Radical* leaves ensiform, dark green, straight; those of the stem linear-lanceolate, acuminate. *Flowers* very sweet-scented, on long peduncles, which have a single bractea below their middle. *Perianthium* rose-coloured, with linear-lanceolate, veiny segments, which are very little unequal in direction. *Stamens* 6, hypogynous, with their filaments united at the base into a fleshy cup. *Anthers* yellow, the 5 upper spotted, standing side by side, and opening by a pore of the apex; the lower very much larger, declinate, not spotted. *Style* filiform, declinate.

J. L.

SINNINGIA guttata.

Dotted-flowered Sinningia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERIEÆ.
SINNINGIA. *Suprà, vol.* 12. *fol.* 997.

S. *guttata;* foliis oblongo-lanceolatis basi attenuatis tomentosis lucidis, corollis guttatis, calycibus cylindrico-campanulatis ovario triplò longioribus.

Habitus *et* statura *S. Helleri;* caulis *crassus, teres, velutinus.* Folia *oblongo-lanceolata, basi attenuata, leviter serrata, utrinque velutina, suprà atro-viridia, lucida.* Flores *solitarii, pedunculis petiolo multò brevioribus.* Calyx 5-*alatus, campanulatus,* 5-*fidus, inflatus, ovario triplò longior.* Corolla *pallida, pubescens, calyce paulò longior, limbo intùs tuboque maculis parvis, livido-purpureis guttata.*

A native of Brazil, whence roots were sent to the Horticultural Society in 1826, by Henry Chamberlain, Esq., His Majesty's Consul-General at Rio Janeiro. Requires the heat of a damp stove, where it flowers abundantly during nearly all the summer. It should be cultivated in decayed vegetable earth, and may be propagated by division of its roots.

Our drawing was made in the Garden of the Horticultural Society in July last, from two plants, one of which had been sent to the Society by Mr. Chamberlain, as above mentioned; the other had been received from Mr. John Henry Masters, Nurseryman of Stoke Newington.

When Sinningia Helleri was published in this work, about fifteen months ago, it was the only species in our gardens, the genus itself having been described only a short time previously. Since that period, three other species, of which this is one, have been introduced. As they are all, even the original one, undefined, we avail ourselves of the present opportunity of stating their specific characters.

The original type of the genus is *S. Helleri*, which is readily distinguished from the others by its leaves, which are thin and light green, and stem being smooth, except a slight ciliation at the margin of the former. Its calyx is turbinate, and about twice as long as the ovarium.

The subject of this article, *S. guttata*, is characterised by its oblong-lanceolate leaves, which taper into the footstalk, are covered with a velvety pubescence, and have a strikingly lucid surface. The calyx is campanulate or nearly cylindrical, and at least thrice as long as the ovarium. The corolla is closely covered with livid purple dots.

The third species, *S. velutina*, approaches the last, from which it differs in its leaves being oblong, with a cordate base, densely velvety, and quite opaque. The flowers are not dotted.

The fourth, *S. villosa*, is twice the size of any of the others, and is covered all over, stem, leaves, and flowers, with a long shaggy hairiness. The flowers are a pale yellowish green, and not solitary, as in the three former species, but clustered in the axillæ of the leaves. The calyx is about the same length as the ovarium, and nearly 5-parted.

All these flower during the greater number of months, and require the same treatment. The three last were sent to the Horticultural Society in 1826 from Rio Janeiro, by Mr. Chamberlain. The following are their specific characters :—

S. *Helleri* (*Nees*); foliis glabris ciliatis, calycibus turbinatis ovario duplò longioribus.

S. *guttata* (*Nobis*); foliis oblongo-lanceolatis basi attenuatis tomentosis lucidis, corollis guttatis, calycibus cylindrico-campanulatis ovario triplò longioribus.

S. *velutina* (*Nobis*); foliis oblongis subcordatis velutinis, calycibus cylindrico-campanulatis ovario triplò longioribus.

S. *villosa* (*Nobis*); caule foliisque villosis, calycibus 5-partitis ovarii longitudine, floribus aggregatis.

J. L.

Ridgway 169 Piccadilly Dec 1. 1827

BRACHYSTELMA spatulatum.

Spatulate-leaved Brachystelma.

PENTANDRIA *DIGYNIA.*

Nat. ord. Asclepiadeæ.
BRACHYSTELMA. *Suprà, vol.* 9. *fol.* 722.

B. *spatulatum;* foliis spatulatis obtusis, corollæ laciniis tubo duplò longioribus.

Tuber *subrotundum.* Caulis *erectus, simpliciusculus, pedalis, teres, carnosus, pilosus.* Folia *spatulato-oblonga, in petiolo attenuata, obtusa, subrepanda, pilosa,* 2 *uncias longa, inferioribus brevioribus, oblongis.* Pedunculi *solitarii, filiformes, pilosi, foliis dimidio breviores.* Sepala *subulata, æqualia, pilosa.* Corolla *campanulata, sordidè purpurea, punctata, laciniis caudatis, erectis, intùs tomentosis, tubo duplò longioribus.*

For this addition to the genus Brachystelma we are indebted to the late Alexander George Mackay, Esq., by whom it was imported from the Cape of Good Hope, in 1826.

To be grown in perfection it should be planted in old rubbish, and kept in a hot, dry stove, where it will flower readily in the months of June and July. After flowering, the stems will die down; the pots should then be removed to a place where they may be kept free from damp, until the ensuing spring.

Tuber roundish. *Stem* erect, nearly simple, about a foot high, terete, fleshy, pilose. *Leaves* spatulate-oblong, tapering into the petiole, obtuse, somewhat repand, pilose, about two inches long; the lower shorter and oblong. *Peduncles* solitary, filiform, pilose, half the length of the leaves. *Sepals* subulate, equal, pilose. *Corolla* campanulate, dull purple, dotted, with caudate, erect segments, downy in the inside, and twice as long as the tube.

J. L.

COTONEASTER microphylla.

Small-leaved Nepal Cotoneaster.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. ROSACEÆ. §. Pomaceæ *Juss. Lindl.*

COTONEASTER. *Flores* polygami. *Calyx* turbinatus, obtusè 5-dentatus. *Petala* brevia erecta. *Stamina* dentium longitudine. *Styli* glabri staminibus breviores. *Achenopses* parietales calyce inclusæ.——Arbusculæ (*Europæ, Americæ septentrionalis, et Indiæ*). Folia *simplicia integerrima, infrà lanata.* Corymbi *laterales patentes.* Bracteæ *subulatæ deciduæ.* Petala *parva persistentia.* Lindl. in Linn. Trans. XIII. 101.

C. *microphylla;* foliis oblongis obtusis lucidis coriaceis, petalis patentibus.

C. microphylla. *Wallich in Mus. Soc. Merc. Ind. Or.*

Fruticulus *prostratus, ramosus, pedalis.* Rami *patentes, teretes, atrofusci, pilosi.* Folia *breviter pedicellata, obovato-oblonga, obtusa, lucida, coriacea, subavenia, subtùs pilosiuscula.* Flores *solitarii, pedunculis brevibus, pubescentibus.* Calyx *campanulatus, dentibus brevibus, ovatis.* Petala *magna, alba, concava, patentia, rotunda, tubo calycis longiora.*

This very elegant addition to our hardy shrubs is a native of Nepal, whence seeds have, at several different times, been sent by Dr. Wallich to the gardens of this country. We first remarked it in the Garden of the Horticultural Society; it next occurred to us in the Nursery of Mr. Miller, of Bristol; and we have since noticed it in other collections.

From specimens communicated by the Honourable Court of Directors of the East India Company, it appears to be the C. microphylla of Dr. Wallich, whose name we are happy in being enabled to adopt.

It is a beautiful little evergreen shrub, clothed with a deep glossy foliage, which no cold will impair, and when in blossom strewed with snow-white flowers, which, reposing on a rich couch of green, have so brilliant an

appearance, that a poet would compare them to diamonds lying on a bed of emeralds.

Flowers in June. Our drawing was made in the Garden of the Horticultural Society in June last, where it had been raised from seeds presented by the Honourable Court of Directors.

It is deserving of notice, that the peculiar flavour which in Drupaceæ is attributed to the presence of Prussic acid, is so strong in this plant, that before flowering it would be taken for a Prunus; a remarkable fact in a tribe of plants which are reputed to possess exclusively Malic, instead of Prussic acid.

A prostrate, branching shrub, about a foot high. *Branches* spreading, round, dark brown, pilose. *Leaves* on short stalks, obovate-oblong, obtuse, lucid, coriaceous, with scarcely any veins, beneath a little hairy. *Flowers* solitary, with short downy peduncles. *Calyx* campanulate, with short downy teeth. *Petals* large, white, concave, spreading, round, longer than the tube of the calyx.

J. L.

ACACIA impressa.

Bastard Sickle-leaved Acacia.

POLYGAMIA *MONŒCIA.*

Nat. ord. LEGUMINOSÆ. §. Mimoseæ.
ACACIA. *Suprà, vol. 2. fol.* 98.

Sect. I. Foliis deformatis, nempè, foliolis sæpiùs præsertim in plantâ adultâ abortivis, petiolis dilatatis filiformibus in Phyllodia mutatis. PHYLLODINEÆ. *Dec. Prodr.* 2. 448.

§. Capitato-racemosæ, *floribus nempè in capitula globosa collectis, capitulis secùs pedunculum axillarem racemosis.—Stipulæ omnium subnullæ v. inermes.* Decand.

A. *impressa;* phyllodiis lanceolatis utrinque acuminatis subfalcatis marginatis penniveniis, anticè uniglandulosis, capitulis racemosis, floribus 5-fidis.

Frutex 5-6-*pedalis, ramis virgatis, angulatis.* Phyllodia *lanceolata, utrinque acuminata, marginata, subfalcata, apice obtusiuscula, costâ tenui excentricâ, venis tenuibus, pinnatis, anticè suprà basin glandulâ solitariâ impressâ,* 3-5 *uncias longa,* 5-6 *lineas lata.* Capitula *racemosa, racemis nunc simplicibus, nunc ramosis, phyllodiis æqualibus, brevioribus, v. longioribus.* Flores *quinquefidi.*

We have received specimens of this plant from New Holland, at several different times, under the name here adopted. We do not find it published in any work at hand; but it is possibly a name of Mr. Cunningham's, on which account we retain it, although its application is not very apparent.

Native of New Holland. It flowers in the greenhouse in August and September. Our drawing was made at Mr. Colvill's Nursery, some years since.

A shrub 5 or 6 feet high, with virgate, angular branches. *Phyllodia* lanceolate, acuminate at each end, with a thickened margin, either falcate or straight, the lower leaves having usually the former figure, those next the flowers

the latter; a little obtuse at the end, but this is very variable, with a slender midrib a little out of the centre, and fine pinnated veins. In front above the base is a single sunken gland. The size of the phyllodia varies from 3 to 5 inches in length, and from 5 to 6 lines in breadth. Heads of flowers in racemes, which are either simple or branched, shorter, as long as, or longer than the phyllodia. Flowers 5-cleft.

J. L.

CONVOLVULUS albivenius.

White-veined Convolvulus.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Convolvulaceæ.
CONVOLVULUS. *Suprà, vol. II. fol.* 133.

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§. *Stigmate capitato.*

C. *albivenius;* foliis subrotundo-cordatis subrepandis: venis subtùs elevatis lanuginosis, floribus solitariis foliis multò longioribus, caule fruticoso tuberculato.

Caulis *fruticosus, volubilis, tomentosus, adultus ferè glaber, tuberculatus.* Folia *longè petiolata, subrotundo-cordata, obtusa v. acuta, repanda, sinu aperto, suprà glabra, rugosa, subtùs venis latis, elevatis, lanuginosis, reticulata.* Flores *solitarii, in ramulis terminales, breviter pedunculati.* Calyx *glaber, sepalis duobus exterioribus majoribus, interioribus submembranaceis, obtusis.* Corolla *magna, tres uncias longa,* tubo *subcylindrico, leviter inflato, extùs sordidè albido, intùs purpureo,* limbo *plano, corrugato, albido, laciniis obcordatis, radiis lutescentibus.* Stamina *medio tubi.* Stigma *capitatum.*

A native of Algoa Bay, where it was found by the late Mr. Forbes, who sent its seeds, in 1824, to the Horticultural Society. It produced its beautiful flowers, for the first time, in a stove, in September 1825, when our drawing was made, in the Society's Garden. The packet of seed was labelled "Creeping Cotton."

It requires the full heat of a good stove, in which situation it forms a suffrutescent stem three or four feet high. Cuttings strike with some difficulty under a hand-glass. From the great beauty of its flowers, this is one of the most desirable of the Convolvulus tribe.

We must state, that as the fruit of this plant is unknown, there is some doubt of its genus. In habit it approaches some of the Lettsomias, especially L. uniflora; but it is probably a true Convolvulus, or Ipomœa, if that genus be retained.

Stem shrubby, twining, downy, when old nearly smooth, and tuberculated. *Leaves* on long stalks, roundish-cordate, obtuse or acute, repand, with the sinus open, smooth above, and rugose, beneath netted with raised woolly veins. *Flowers* solitary, terminal on short side shoots, on short stalks. *Calyx* smooth, the two outer sepals largest, the inner somewhat membranous, and obtuse. *Corolla* large, about 3 inches long; *tube* subcylindrical, slightly inflated, dirty white externally, purple internally; *limb* flat, wrinkled, whitish, with obcordate segments and yellowish rays. *Stamens* in the middle of the tube. *Stigma* capitate.

J. L.

TECOMA capensis.

Cape Bignonia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. BIGNONIACEÆ.

TECOMA Juss. *Calyx* campanulatus 5-dentatus. *Corolla* tubo brevi; fauce campanulatâ; limbo quinquelobo bilabiato. *Stamina* quatuor didynama, cum rudimento quinti. *Stigma* bilamellatum. *Capsula* siliquæformis bilocularis; dissepimentum valvis contrarium. *Semina* biseriata, imbricata, alata, transversa.——Arbores *aut rariùs* frutices. Folia *opposita digitata aut sæpiùs imparipinnata.* Flores *terminales paniculati flavi v. incarnati.* Kunth. synopsis 2. 244.

T. *capensis;* foliis imparipinnatis quadrijugis: foliolis ovatis serratis glabris, axillis venarum subtùs barbatis, racemis pedunculatis.

Bignonia capensis. *Hort. Reg. Kewensis.*

Rami *teretes, glabri.* Folia *imparipinnata, sub-4-juga;* foliolis *ovatis, grossè serratis, basi cuneatis integris, glabris, axillis venarum subtùs fasciculis pilorum barbatis; petiolus subalatus.* Flores *densè racemosi, in longo pedunculo insidentes.* Pedicelli *filiformes, bracteis longiores.* Calyx *brevis, campanulatus, subtruncatus, 5-dentatus, dentibus inferioribus obsoletis.* Corolla *aurantiaco-coccinea, ferè duas uncias longa, tubo longo, arcuato, basi intùs villoso; limbo patente, obliquo, 4-partito, laciniis subæqualibus obtusis, superiore emarginatâ; fauce venosâ.* Filamenta *corollâ longiora, basi pilosa.* Antheræ *basi divaricatæ, glabriusculæ.* Stylus *filiformis, glaber.* Stigma *bibamellatum.* Capsula *siliquæformis, bilocularis, dissepimento valvis contrario, seminibus alatis.*

For the accompanying drawing of this noble species we are indebted to William Townsend Aiton, Esq. by whom it was communicated from His Majesty's Gardens at Kew, last September. It is a native of the Cape of Good Hope, whence seeds were sent to Kew by Mr. Bowie in 1823. A hardy greenhouse plant of great beauty. It grows freely in light rich soil, and cuttings root readily under a hand-glass.

Branches climbing, round, smooth. *Leaves* unequally pinnated, toothed, of about four pair; *leaflets* ovate, coarsely

cuneate and entire at the base, smooth, except at the axillæ of the veins on the under side, where are tufts of hair, just as in Fraxinus ornus, to the foliage of which this bears great resemblance; petiole slightly winged. *Flowers* in dense racemes, on a long peduncle. *Pedicels* filiform, longer than the bracteæ. *Calyx* short, campanulate, somewhat truncate, 5-toothed, the lowermost teeth being obsolete. *Corolla* orange red, about two inches long, with a long arcuate tube, which is villous inside at the base; limb spreading, oblique, four-parted, with nearly equal segments, the upper of which is emarginate; throat veiny. *Filaments* longer than the corolla, pilose at base. *Anthers* divaricating at the base, smoothish. *Style* filiform, smooth. *Stigma* with two lamelliform lobes. *Capsule* shaped like a siliqua, two-celled, with the dissepiment contrary to the valves. *Seeds* with a membranous margin.

Explanation of the Plate.

1. A section of the lower part of the tube of the corolla, shewing the sterile rudiment. 2. Another view of the same, exhibiting the discus and a section of the ovarium. 3. Upper portion of style and stigma. 4. Back of an anther in a young state. 5. Front of the same. 6. Front of a ripe anther. 7. Capsule burst, with its dissepiment. 8. Seed.

J. L.

1118.

MIMULUS moschatus.

Musk-scented Monkey-flower.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ.
MIMULUS. *Suprà, vol.* 11. *fol.* 874.

M. *moschatus;* caule repente foliisque ovatis dentatis glanduloso-villosis, pedunculis geminis foliis brevioribus, corollæ limbo subæqualiter 5-lobo, laciniâ inferiore pubescente.

M. moschatus. *Douglas Journal, &c. ined.*

Herba *repens, perennis, sempervirens.* Caules *teretes, ramosi, glanduloso-villosi, prostrati, nunc sesquipedales, sæpiùs spithamæi.* Folia *glanduloso-villosa, petiolata, ovata, grandidentata; nunc basi subcordata, moschum gratissimum redolentia.* Flores *axillares, gemini vel solitarii, pedunculis glanduloso-villosis, filiformibus, foliis duplò brevioribus.* Calyx *tubulosus, glandulosus, laciniis subulato-ovatis, tubo corollæ paulò brevioribus.* Corolla *lutea, unicolor, lobis rotundatis, subæqualibus, inferioribus ad faucem striatis, intermedio leviter barbato.* Capsula *ovata, acuminata, calyce brevior, bilocularis, 4-valvis, ad latera dehiscens, septis axi fortè adhærentibus.* Semina *minutissima, brunnea, subrotunda.*

For this truly charming hardy perennial our gardens are indebted to Mr. Douglas, by whom it was found growing sparingly on the margins of springs in the country about the river Columbia, in North-West America. The whole plant is covered with a soft glandular hairiness, which emits a powerful but extremely pure smell of musk, that perfumes the atmosphere in hot weather, or if the plant is trodden upon. In the cold months of winter the scent is much less powerful. The blossoms are a clear bright yellow, and appear in profusion during all the summer.

Our drawing was made in the Garden of the Horticultural Society in August last.

To be cultivated in perfection, it should be planted in

peat soil, in a shady damp border. It is propagated by seeds, or by division of its creeping roots.

A creeping, herbaceous plant, with permanent leaves. *Stems* rounded, branched, covered with glandular hairs, prostrate, sometimes as much as a foot and a half long, more usually about a span high. *Leaves* glandular, villous, stalked, ovate, with large teeth, sometimes subcordate at the base, emitting a very powerful and grateful smell of musk. *Flowers* axillary, in pairs or solitary, with glandular, villous, filiform peduncles, twice as short as the leaves. *Calyx* tubular, glandular, with subulate, ovate segments, a little shorter than the tube of the corolla. *Corolla* yellow, whole-coloured, with roundish, nearly equal lobes, the lowest being striated at the faux, and the middle one slightly bearded. *Capsule* ovate, acuminate, shorter than the calyx, two-celled, 4-valved, dehiscing at the sides, with the septa firmly adhering to the axis. *Seeds* very minute, brown, roundish.

J. L.

ŒNOTHERA quadrivulnera.

Four-spotted Œnothera.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRARIÆ.
ŒNOTHERA. *Suprà, vol. 2. fol.* 147.

Œ. *quadrivulnera;* foliis linearibus integerrimis pubescentibus, capsulis pilosis teretibus sulcatis foliis brevioribus, petalis denticulatis sub apice discoloribus, tubo calycis brevissimo.
Œ. quadrivulnera. *Douglas Journal, &c. ined.*
Caulis *erectus, ramosus, densè foliosus, ramis strictis, teretibus, pallidis, leviter pilosis.* Folia *oblongo-linearia, pubescentia, uncialia.* Flores *axillares, foliis breviores.* Ovarium *fusiforme, apice attenuatum, sulcatum, tomentosum.* Sepala *reflexa, pilosa, acuminata, ovario quadruplo breviora, tubo suo obconico duplò longiora.* Petala *subrotunda, erecta, pallidè lilacina, sub apice denticulata, maculâ unicâ purpureâ.* Capsula 3 *v.* 4 *lineas longa, cylindracea, pilosa, sulcata.* Semina *atrofusca, opaca, angulata.*

A very neat and well-marked species, resembling Œ. Lindleyana in the singular spotting of the petals, but different from it in their colour, and in the size and mode of growth of the plant. In the open border it forms a diffuse patch, with stems about a foot in length: if grown in a pot, for which it is admirably adapted, it becomes a dense tuft of stems about 6 inches high, which are almost covered with leaves and elegant lilac flowers. It blossoms from June till the frosts destroy it.

A hardy annual, propagated readily by seeds; native of the north-west of North America, where it was collected by Mr. Douglas. Our drawing was made in the Chiswick Garden, in September last.

Stem erect, branched, densely covered with leaves; branches upright, round, pale, slightly pilose. *Leaves* oblong-linear, pubescent, an inch long. *Flowers* axillary,

shorter than the leaves. *Ovarium* fusiform, tapering to the end, furrowed, downy. *Sepals* reflex, pilose, acuminate, four times as short as the ovarium, and twice as long as their own obconical tube. *Petals* roundish, erect, pale lilac, toothletted at the apex, with a single purple spot. *Capsule* 3 or 4 lines long, cylindrical, pilose, furrowed. *Seeds* dark brown, opaque, angular.

J. L.

Watts sc

DIANELLA revoluta.

Few-flowered Port Jackson Dianella.

HEXANDRIA *MONOGYNIA.*

Nat. ord. ASPHODELEÆ.
DIANELLA. Suprà, vol. 9. fol. 734.

D. *revoluta;* foliis radicalibus linearibus strictis: marginibus revolutis carinâque lævibus; caulinis paucis articulo brevioribus, paniculæ ramis brevibus vix divisis paucifloris pedicellisque arcuatis. *R. Br. Prodr.* I. 280.

Caulis *erectus, suffruticosus, bi-tri-uncialis, flexuosus, simplex.* Folia *disticha, ensiformia, dura, rigida,* 3-4 *lineas lata, pedem et dimidiam longa, atro-viridia, costâ et marginibus glabris usque ad apicem obtusum, quo denticulata Ananassarum more, sed minùs.* (Obs. *icon, incuriâ pictoris, quoàd apicem foliorum, erronea.*) Scapus *erectus, angulatus, glaber.* Panicula *terminalis, foliis brevior, laxa, pauciflora.* Bracteæ *scariosæ, acuminatæ, pedicellis multò breviores.* Perianthium *cum pedicello arcuato, quo brevius, articulatum, sexpartitum, laciniis subæqualibus, pallidè purpureis.* Filamenta *apice stuposa, lutea, glabra.* Antheræ *lineares, fuscæ.*

A native both of Port Jackson and the tropical part of New Holland, but especially of the former region, whence seeds were sent in 1824 to the Horticultural Society by Mr. Charles Frazer. Our drawing was made in a greenhouse in the Chiswick Garden in August last.

We strongly suspect that the D. longifolia of fol. 734 of the present work, is a luxuriant variety of this species; and not the D. longifolia of Mr. Brown, which has broader leaves, and erect, not arcuate, pedicels.

Stem erect, half frutescent, 2 or 3 inches high, flexuose, simple. *Leaves* distichous, ensiform, hard, rigid, 3 or 4 lines broad, a foot and a half long, dark green, with the costa and edges smooth, except at the apex, where both are toothletted like the leaves of a Pine Apple, but in a

less degree. *Scape* erect, angular, smooth. *Panicle* terminal, shorter than the leaves, lax, few-flowered. *Bracteæ* scariose, acuminate, much shorter than the pedicels. *Perianthium* articulated with the arcuate pedicel, than which it is shorter, six-parted, with nearly equal, pale purple segments. *Filaments* stupose at the apex, yellow, smooth. *Anthers* linear, brown.

J. L.

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PENTSTEMON Richardsonii.

Dr. Richardson's Pentstemon.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ.

PENTSTEMON Mitch. *Calyx* pentaphyllus, aut quinquepartitus, bracteâ solitariâ distante. *Corolla* ventricosa bilabiata. *Stamina* didynama rudimento quinti filiformi sæpiùs barbato. *Antheræ* sejunctæ sæpiùs glabræ. *Capsula* ovata bilocularis, bivalvis, polysperma. *Semina* angulata. Herbæ *v.* suffrutices, *Americanæ et Orientali-Asiaticæ.* Folia *lævia acuminata sæpiùs serrata.* Flores *paniculato-racemosi purpurei rosei albidive.*

P. *Richardsonii;* caule herbaceo, foliis sessilibus pinnatifidis, calycibus glanduloso-pubescentibus: laciniis ovatis acutis, corollæ labio superiore bilobo, inferiore trilobo transverso, pedunculis racemosis 2-3 floris.

P. Richardsonii. *Douglas Journal, &c. ined.*

Caulis *erectus, sesquipedalis, parùm ramosus, teres, minutissimè pubescens.* Folia *ovata, acuminata, pinnatifida,* 2½ *uncias longa, laciniis incisis, suprà sub lente minutissimè pubescentia, subtùs pallidiora, omninò glabra.* Flores *axillares, paniculati, paniculis strictis, paucifloris.* Pedicelli *glandulosi.* Calyx *pentaphyllus, foliolis oblongo-lanceolatis, subpubescentibus:* Corolla *purpurea, ventricosa, extùs ferè omninò glabra, bilabiata, labio superiore erecto, bilobo, inferiore trilobo, lævissimè piloso.* Filamenta superiora *basi incrassata.* Antheræ *glabræ, hippocrepicæ, resupinatæ, valvis versùs apicem ciliatis.* Rudimentum *filiforme, staminibus longior, apice pilis paucissimis barbatum.*

One of several new species found by Mr. Douglas in the north-western territories of North America, growing on bare dry rocks, in the vicinity of the Columbia and its branches.

Mr. Douglas has named it in compliment to Dr. Richardson, the celebrated companion of Captain Franklin in the late overland expeditions to the shores of the Polar Sea, undertaken by order of the British Government.

This is a handsome hardy perennial, growing freely in peat among American plants, and flowering towards the

latter end of the summer. Our drawing was made in the Garden of the Horticultural Society, in September last.

It is seldom we have reason to differ in opinion upon the limits of genera from our friend M. Kunth; but on the present occasion we can by no means assent to his combination of Chelone and Pentstemon. Chelone has a ringent corolla, seated among round imbricated bracteæ; its anthers are fastened together by a dense mass of wool; and its seeds have a membranous margin. Pentstemon, on the contrary, has a bilabiate corolla, with only a single bractea, which is at a considerable distance from it; its anthers are distinct from each other, and either perfectly smooth, or at most only slightly pubescent; and its seeds are destitute of a membranous margin. The habit of the two genera is also strikingly different. It is possible that these distinctions, which, however, are not now stated for the first time, have escaped the notice of M. Kunth, for he refers the plant called Chelone barbata, which is a Pentstemon, to the section of which Chelone is the type, relying, as it seems, upon the differences in the sterile filament, which are of very little value.

Stem erect, a foot and a half high, slightly branched, round, minutely pubescent. *Leaves* ovate, acuminate, pinnatifid, about 2½ inches long, with their segments cut, on the upper surface minutely downy, beneath paler and wholly smooth. *Flowers* axillary, panicled, with upright, few-flowered panicles. *Pedicels* glandular. *Calyx* five-leaved, with oblong-lanceolate, somewhat pubescent, leaflets. *Corolla* purple, ventricose, almost wholly smooth on the outside, bilabiate, the upper lip erect, two-lobed, the lower three-lobed, and very slightly pilose. *Upper filaments* thickened at the base. *Anthers* smooth, horse-shoe-shaped, resupinate, the valves fringed towards their apex. *Rudiment* filiform, longer than the stamens, bearded at the apex with a very few hairs.

J. L.

PENTSTEMON angustifolium.

Narrow-leaved Pentstemon.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Scrophularineæ.
PENTSTEMON. *Suprà, vol.* 13. *fol.* 1121.

P. *angustifolium;* caule herbaceo, foliis glaberrimis ovato-lanceolatis argutè serrulatis acuminatis, staminibus exsertis, filamentis superioribus basi petaloideis, corollis sub-barbatis extùs puberulis, stamine sterili apice barbato.

Chelone angustifolia. *Humb. Bonpl. et Kunth. nova genera et species plantarum,* 2. *p.* 365. *tab.* 173. *synopsis,* 2. 123. *Spreng. syst.* 2. 813.

Chelone rosea. *Hort.*

Caulis *erectus, subramosus, bipedalis, v. ultrà, glaberrimus, nisi versùs fastigium, ubi minutissimè glandulosus.* Folia *ovato-lanceolata, amplexicaulia, acuminata, argutè serrulata, serraturis incurvis, glaberrima, superiora sensim latiora, et minùs serrata, demùm integra.* Panicula *stricta, terminalis, multiflora.* Pedicelli *filiformes, glandulosi.* Calycis laciniæ *lineari-lanceolatæ, purpureæ, sub lente glandulosæ.* Corolla *tubulosa, subventricosa, lætè rosea, bilabiata, extùs glandulosa, laciniis superioribus obliquis, inferioribus brevibus, ovatis, leviter barbatis.* Filamenta superiora *basi quàm maximè dilatata.* Antheræ *exsertæ, glaberrimæ, lobis divaricatis.* Rudimentum *staminibus brevius, apice barbatum.*

A native of Mexico, where it was found by Messrs. Humboldt and Bonpland growing between Moran and Omitlan, at an elevation of 7920 feet above the level of the sea, upon rocks overshadowed by trees.

A very handsome plant, and we believe a hardy perennial. It flowered in the summer of 1827, for the first time, in Mr. Tate's Nursery, where our drawing was made.

This is very nearly the same as the Chelone elegans of M. Kunth, a native both of Cuba and of very high land in New Spain, which appears to us to differ in little except its suffrutescent habit. The breadth of the foliage of the

garden plants of P. angustifolium is greater than that of the specimens examined and figured by M. Kunth, so as in fact to answer to the terms used by that botanist in defining his C. elegans.

It is worthy of remark, that the uppermost filaments, which are usually thickened at the base, are in this species so much dilated there, as to have become almost petaloid.

Stem erect, somewhat branched, about two feet high, or more, quite smooth, except towards the top, where it is minutely glandular. *Leaves* ovate-lanceolate, amplexicaul, acuminate, finely serrulate, the serratures incurved, quite smooth, the upper by degrees broader and less serrated, at last entire. *Panicle* erect, terminal, many-flowered. *Pedicels* filiform, glandular. *Segments* of the calyx linear-lanceolate, purple, if viewed with a magnifying glass glandular. *Corolla* tubular, somewhat ventricose, bright rose colour, bilabiate, glandular externally; the upper segments oblique, the lower short, ovate, slightly bearded. *Upper filaments* very much dilated at the base. *Anthers* exserted (in P. campanulatum not exserted), quite smooth, with divaricating lobes. The *rudiment* shorter than the stamens, and bearded at the apex.

J. L.

Weddell sc

OXALIS floribunda.

Many-flowered Oxalis.

DECANDRIA *PENTAGYNIA.*

Nat. ord. OXALIDEÆ.
OXALIS. *Suprà, vol. 2. fol.* 117.

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§. 2. Corniculatæ, *caulibus basi non bulbosis herbaceis (rarissimè suffruticosis) foliosis, pedunculis rariùs unifloris sæpiùs bi- aut multifloris, foliis palmato-trifoliatis, foliolis omnibus sessilibus obcordatis.*

O. *floribunda;* caule erecto herbaceo multifloro, foliolis cuneato-obcordatis petiolisque pilosis, sepalis obtusis tomentosis apice bilineatis, stigmatibus stamina excedentibus.

O. floribunda. *Lehmann in litteris.*

Caulis *strictus, ramosus, sæpè sesquipedalis, ramis divaricatis, carnosis, teretibus.* Foliola *cuneato-obcordata, utrinque petiolique pilosa.* Pedunculi *divaricati, multiflori, pilosi.* Pedicelli *filiformes, pubescentes.* Calyx *cum pedicello continuus, tomentosus, viridis, sepalis oblongis, obtusis, apice coccineo-bilineolatis.* Corolla *rosea, fauce viridi.* Petala *obtusa, subcrenata.* Styli *sepalorum longitudine, stamina excedentes.*

Sent to the Horticultural Society by Professor Lehmann, of Hamburgh, in 1827, with the name here adopted. Its native country is not known to us; it probably is South America.

If grown in a pot, in a cool greenhouse, it flourishes exceedingly, soon acquiring the height of a foot or 18 inches, and producing in great profusion loose bunches of rose-coloured flowers, which are placed upon the end of peduncles diverging from the main stem at nearly right angles, and giving the whole plant the air of a vegetable chandelier of many branches.

Stem upright, branched, often a foot and a half high, with divaricating, fleshy, round branches. *Leaflets* crenate-obcordate, hairy on each side, as are also the petioles. *Peduncles*

divaricating, many-flowered, pilose. *Pedicels* filiform, pubescent. *Calyx* continuous with the pedicel, downy, green, with oblong, obtuse sepals, with two scarlet lines at the apex. *Corolla* pink, with a green faux. *Petals* obtuse, somewhat crenate. *Styles* the length of the sepals, and longer than the stamens.

J. L.

Hart del. Pub by J. Ridgway 169 Piccadilly Feb 1. 1828. J. Watts sc.

LUPINUS leucophyllus.

White-leaved Lupine.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ.
LUPINUS. Suprà, vol. 6. fol. 457.

L. *leucophyllus;* herbaceus villosissimus, floribus alternis pedicellatis bracteolatis, calycis labio superiore bifido: inferiore integro, foliis digitatis: foliolis 7-9 oblongo-lanceolatis, stipulis subulatis lanatis.
L. leucophyllus. *Douglas Journal ined.*

Perennis. Caulis *erectus,* 2-3 *pedalis, villosissimus, ramosus.* Folia *undique densissimè albo villosa, siccitate subferruginea, stipulis subulatis, lanatis, integerrimis,* foliolis 7-9, *oblongo-lanceolatis, lanatis.* Racemi *terminales, densi, cylindracei, multiflori.* Pedicelli *villosi, calyce breviores.* Calyx *villosus, bibracteolatus, bracteolis subulatis, laciniâ superiore bifidâ, inferiore falcatâ, integrâ.* Flores *albidi;* vexillo *parvo, ovato, acuto, dorso sericeo,* alis *obtusis, falcatis,* carina *acuminata, alarum longitudine, glabra.* Legumen *villosissimum, subpentaspermum, stylo indurato, recurvo, persistente rostratum.* Semina *minora, rufo-brunnea, paululum maculata.*

This fine perennial is a native of woodless, sandy deserts, from the great falls of the river Columbia in North America, to the sources of the Missouri among the Rocky Mountains, where it was discovered by Mr. Douglas. It is a branching plant, covered all over with long white hairs, which in the wild plant are so abundant as to conceal the epidermis. The flowers grow in long slender racemes, and are either white, as in the figure, or tinged with light pink.

Flowers from June to November, propagated either by seeds or by dividing the roots.

Our drawing was made in the Garden of the Horticultural Society, in October 1826.

Stem erect, branched, 2 or 3 feet high, very villous. *Leaves* covered all over with white hairs, when dry be-

coming rather ferruginous; *stipules* subulate, woolly, entire; *leaflets* 7-9, oblong-lanceolate, woolly. *Racemes* terminal, dense, cylindrical, many-flowered. *Pedicels* villous, shorter than the calyx. *Calyx* villous, with two subulate bracteolæ; the upper segment bifid, the lower falcate and entire. *Flowers* whitish; *vexillum* small, ovate, acute, silky at the back; *wings* obtuse, falcate; *keel* acuminate, smooth, the length of the wings. *Pod* very villous, about 5-seeded, with an indurated, recurved, persistent style; *seeds* rather small, reddish brown, a little spotted.

In affinity, this species should stand next the L. alopecuroides of Desrousseaux, a native of the mountains of Quito.

J. L.

MIMULUS floribundus.

Many-flowered Mimulus.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Scrophularineæ.
MIMULUS. *Suprà, vol.* 11. *fol.* 874.

M. *floribundus*; caule ramoso piloso, foliis cordatis petiolatis dentatis, floribus inferioribus solitariis foliis brevioribus, calycibus rubriveniis.

Annuus. Caulis *diffusus, ramosus, cæspitosus, pilosus.* Folia *opposita, cordato-ovata, dentata, breviter petiolata, subpubescentia; superioribus versùs ramorum fastigium minoribus.* Flores *axillares, solitarii, inferioribus foliis brevioribus, superioribus longioribus.* Pedunculi *pubescentes.* Calyx *pilosus, angulis rubris, demùm inflatus.* Corolla *lutea, fauce paululum maculosâ, laciniis subæqualibus, obtusis.*

A neat hardy annual, found by Mr. Douglas on moist rocks in the interior of the districts of the river Columbia. It begins to blossom in August, and remains in beauty till the middle of October: the flowers expand in the morning, and close by about mid-day.

Raised with facility from seeds sown in April upon a warm damp peat border. The young plants should be thinned out well, or they are apt to choke each other. In consequence of the smallness of the seeds, it is best to mix them with pit-sand or wood-ashes before they are committed to the earth.

Stem diffuse, branched, cespitose, pilose. *Leaves* opposite, cordate-ovate, dentate, on short stalks, somewhat pubescent; the upper ones towards the extremity of the branches smaller. *Flowers* axillary, solitary; the lower shorter than the leaves, the upper longer. *Peduncles* pubescent. *Calyx* pilose, with red angles, in seed inflated. *Corolla* yellow, with a somewhat spotty faux, and nearly equal, obtuse segments.

J. L.

GONOLOBUS viridiflorus.

Green-flowered Gonolobus.

PENTANDRIA *DIGYNIA.*

Nat. ord. Asclepiadeæ.
GONOLOBUS. Suprà, vol. 3. fol. 252.

G. *viridiflorus;* umbellis foliis brevioribus paucifloris, foliis cordato-ovatis ovatisve acuminatis glabris, caule volubili. *Röm. et Schultes syst. veg.* 6. 61.
" Cynanchum viridiflorum. *Meyer fl. Essequeb. p.* 141."
G. guianensis. *Spreng. syst.* 1. 845.

Caulis *fruticosus, volubilis, retrorsùm villosus.* Folia *oblonga, subpandurata, basi cordata, acuta, petiolata, glabriuscula, subtùs venosa.* Cymæ *triflorœ, foliis breviores, pedicellis pilosis.* Flores *magni, virides, venosi, glabri.*

A native of South America, in the district of Essequebo, whence it was obtained and described by Dr. Meyer; and also in Brazil, whence the plant from which our drawing was taken, in August last, was sent by Henry Chamberlain, Esq. to the Horticultural Society of London.

A curious stove twining shrub, propagated very readily by cuttings of the ripened wood.

Stem covered with long, reversed hairs. *Leaves* oblong, somewhat panduriform, cordate at the base, acute, stalked, smoothish, veiny beneath. *Cymes* 3-flowered, shorter than the leaves, with pilose pedicels. *Flowers* large, green, veiny, smooth.

J. L.

GLOXINIA caulescens.

Miller's Pernambuco Gloxinia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERIEÆ.
GLOXINIA. *Suprà, vol. 3. fol. 213.*

G. *caulescens*; foliis ovalibus crenatis obtusis tomentosis margine revolutis, caule erecto elongato, floribus solitariis longè pedunculatis, corollæ laciniis subæqualibus imbricatis; intermediâ cordatâ ovatâ.

Caulis *erectus, pedalis, teres, carnosus.* Folia *oblonga, obtusa, carnosa, crenata, pubescentia, margine revoluto, venis subtùs crassis, prominentibus*; petiolis *teretibus, crassis.* Flores *solitarii, axillares, longè pedunculati, atro-purpurei*; pedunculi *pubescentes.* Calyx *exactè ferè* G. speciosæ, *obliquus, laciniis acuminatis, imbricantibus.* Corolla *subarcuata, cernua, carnosa, pubescens, laciniis subrotundis, undulatis, imbricantibus, subæqualibus, laciniâ intermediâ cordatâ.*

A native of Pernambuco, whence it was imported by Mr. Miller, of the Bristol Nursery, in whose very extensive establishment it flowered in August last. It is by far the finest of this handsome genus that has yet appeared, and exceedingly worthy of cultivation. It requires, like the other Gloxinias, the heat of the stove; and, we presume, is to be propagated in the same way as they are.

Our figure was made on the spot by Miss Mintron,—a lady whose skill in the elegant accomplishment of drawing is rarely equalled even by professional artists.

Stem erect, about a foot high, round, fleshy. *Leaves* oblong, obtuse, fleshy, crenated, pubescent, with revolute margins, and thick, prominent veins beneath; *petioles* thick, round. *Flowers* solitary, axillary, on long stalks, dark purple; *peduncles* pubescent. *Calyx* almost exactly that

of Gloxinia speciosa, oblique, with acuminated, imbricated segments. *Corolla* somewhat arcuate, cernuous, fleshy, pubescent, with roundish, undulated, imbricated, nearly equal segments, the middle one of which is cordate.

J. L.

CRATÆGUS oxyacanthoides.

Wedge-leaved Hawthorn.

ICOSANDRIA *DIGYNIA.*

Nat. ord. Rosaceæ. *Tribus* Pomaceæ.

CRATÆGUS Lindl. *Calycis* tubus urceolatus, limbus 5-fidus. *Petala* patentia, orbiculata. *Ovarium* 2-5-loculare. *Styli* totidem glabri. *Pomum* carnosum, ovatum, dentibus calycis vel disco incrassato clausum, putamine osseo.——Frutices *spinosi.* Folia *angulata aut dentata.* Corymbi *terminales.* Bracteæ *subulatæ, deciduæ.* Dec. prodr. 2. 626.

C. *oxyacanthoides;* foliis cuneatis obtusis apice trilobis serratis glabris utrinque concoloribus, floribus corymbosis digynis, calycibus eglandulosis, ovario pubescente.

α. *flore simplici.*
C. oxyacantha. *Fl. Danica, tab.* 634.
C. oxyacanthoides. *Thuillier, fl. Par.* 245.
" Mespilus oxyacantha integrifolia. *Wallr. sched.* 219."
Mespilus oxyacanthoides. *Decand. fl. tr.* 4. 433.
C. oxyacantha, obtusata. *Decand. prodr.* 2. 628.

β. *flore pleno.*
C. oxyacantha plena. *Hort.*

γ. *foliis pubescentibus.*
C. triloba. *Pers. ench.* 2. *p.* 37. *Dec. prodr.* 2. 630.

Folia *glaberrima, cuneata, obtusa, 3-loba, serrata, nunc subspatulata, nunc in ramulis vegetioribus 5-loba, acuta;* stipulæ *semi-sagittatæ, dentatæ, eglandulosæ.* Cymi *laxi, corymbosi, multiflori.* Pedicelli *filiformes, glabri, ovariaque oblonga, pubescentia, eglandulosa.* Flores *albi, digyni, odori.*

Variable as is the European Hawthorn, it is distinguishable into about three principal forms, which represent as many Botanical species. Of these, the first, with deeply pinnatifid leaves, round smooth ovaria, and compact cymes, is the true C. oxyacantha; to which are to be referred as varieties, C. laciniata of Besser, the pink and yellow-berried Hawthorns of the Gardens, and the C. monogyna of various authors, with their synonyms. A second form is the C. fissa of some of the English Gardens, but not of Bosc, which has broad, deeply cut, pinnatifid

C. oxyacantha obtusata

leaves, downy beneath, especially at the axillæ, and black fruit: this may be called C. *platyphylla*. The third form is the subject of this article, to which undoubtedly belongs the double Hawthorn of the Gardens; and also, as a remarkable variety, the C. triloba of Persoon: it has peculiarly loose cymes of flowers, and cuneate, obtuse leaves.

A handsome hardy shrub, or small tree, native of the neighbourhood of Paris, according to Thuillier and Decandolle, and probably of most parts of Europe; where it is to be expected that it has been confounded with C. oxyacantha. The plant from which our drawing was made flowered last May, in the Garden of the Horticultural Society, to which establishment it had been presented by Messrs. Loddiges. It is propagated by budding or grafting upon the common Hawthorn.

Leaves quite smooth, cuneate, obtuse, 3-lobed, serrated, sometimes almost spatulate, occasionally on the strong branches 5-lobed and acute; *stipulæ* half sagittate, dentate, without glands. *Cymes* loose, corymbose, many-flowered. *Pedicels* filiform, smooth; and the ovaria, which are downy and oblong, free from glands. *Flowers* white, sweet-scented, with two styles.

J. L.

S. L. del. Pub by J. Ridgway 169 Piccadilly Feb. 1. 1…

SOPHRONIA cernua.

Drooping Sophronia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Tribus* Vandeæ *Lindl.*

SOPHRONIA. Pollinia 8, anticè et posticè parallela, caudiculâ duplici pulvereâ, glandulâ 0? *Anthera* terminalis opercularis 8-locularis, cardine crasso. *Stigma* concavum rostello obtuso. *Columna* libera apice utrinque alata alis integris conniventibus super cristam labelli. *Labellum* integrum cucullatum linguiforme, basi cum columnâ connatum, medio cristâ simplici transversâ. *Sepala* subæqualia, imbricata, basi libera.—— Herba *epiphyta* (Braziliensis) *monophylla, non bulbosa,* racemis *axillaribus effusis paucifloris,* floribus *rubris.*

S. cernua.

Epiphyta, inter muscos vegetans. Caulis *brevissimus, vaginatus, anceps.* Folium *solitarium, ovale, apiculatum, avenium, carnosum, purpureo discolor.* Racemus *axillaris, abbreviatus, effusus,* Pleurothallidis *cujusdam modo.* Sepala *rubra, basi lutea, subæqualia, ovata, acuta, patentia, interioribus imbricatis.* Labellum *basi luteum, apice rubrum.* Columnæ *albæ* alæ *atropurpureæ.* Pollinia *olivacea.*

Found upon a tree at Botofogo, three miles from Rio Janeiro, by William Harrison, Esq., by whom it was transmitted to Mrs. Arnold Harrison, of Aigburgh, near Liverpool, whence it was obligingly sent with a sketch, in December 1826. It is a very remarkable little epiphyte, growing readily in decayed vegetable soil among moss, in a hot humid shady part of the stove.

In generic affinity it is most nearly akin to Octomeria, which differs in having sessile pollen masses, a column without wings, the two lower sepals united at the base, and a 3-lobed labellum. Eria, which is also nearly allied, belongs to Malaxideæ.

An epiphyte, about 3 inches high, growing among moss. *Stem* very short, sheathing, two-edged. *Leaf* solitary, oval, apiculate, veinless, fleshy, discoloured with purple.

Raceme axillary, short, effuse, in the way of some Pleurothallis. *Sepals* red, yellow at base, nearly equal, ovate, acute, spreading, the inner ones imbricated. *Labellum* yellow at base, red at apex. *Wings* of the white columna dark purple. *Pollen masses* olive green.

J. L.

W. Hart. del.

Pub by J. Ridgway 169 Piccadilly

BILLBERGIA fasciata.

Banded Billbergia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. BROMELIACEÆ.
BILLBERGIA. *Suprà, vol.* 13. *fol.* 1068.

Sect. 1. *Stamina omnia calyce inserta. Stigmata linearia.*
Sect. 2. *Stamina alterna petalis super squamam inserta. Stigmata petaloidea.*

B. *fasciata;* spicâ proliferâ capitulâ bracteis involucratâ, foliis glaucis obtusis apiculatis recurvis spinoso-serratis albo fasciatis, scapo hispido.

Folia *radicalia glauca, erecto-recurva, canaliculata, ligulata, obtusa, apiculata, spinoso-serrata, hic illic fasciis albis tomentosis, nunc interruptis trajecta.* Scapus $1\frac{1}{2}$ *pedalis, foliosus, hispidus.* Spica *capitata, composita, prolifera, bracteis longis, roseis, acuminatis, spinoso-serratis involucrata.* Calyx *superus, coriaceus, glaber, 3-partitus, non 3-phyllus; laciniis cordato-ovatis, pluri-costatis, carinatis, marginibus omnibus membranaceis, imbricantibus.* Petala 3, *purpurea, in margine disci epigyni cyathiformis inserta, unguiculata, concava, super basin squamâ lacerâ munita, disco subplicato corrugato.* Stamina 6, 3 *petalis alterna, in eâdem serie inserta,* 3 *petalis inserta infrà medium;* filamenta *linearia, membranacea, versùs basin subteretia;* antheræ *lutescentes, sagittatæ, anticæ, biloculares, longitudinaliter dehiscentes, æstivatione marginibus cohærentes, filamentis medio dorso adhærentes.* Ovarium *lanatum, triloculare, polyspermum.* Stylus *filiformis, apicem versùs incrassatus.* Stigmata 3, *crispa, petaloidea, mox convoluta.*

A native of Rio Janeiro, whence it was received by Mr. Samuel Brookes, of the Ball's Pond Nursery, where the accompanying figure was made, in August 1826.

A remarkably handsome stove plant, requiring the assistance of a bark bed, and propagated by offsets of the spike and root. It has nearly the same relation to true Billbergias that the Tillandsia nitida of Professor Hooker bears to the genuine species of Tillandsia. The white bands of the leaves, and the rich rose-coloured bracteæ of this species, give it a particularly beautiful appearance.

Radical *leaves* glaucous, erect-recurved, channelled, ligulate, obtuse, with a little point, with spinous serratures, and here and there crossed with white downy bands. *Scape* 1½ foot high, leafy, hispid. *Spica* capitate, compound, proliferous, with long, acuminate, spinous-serrated, rosy bracteæ. *Calyx* superior, coriaceous, smooth, 3-parted, not 3-leaved: the segments cordate-ovate, many-ribbed, keeled, with membranous, imbricated margins. *Petals* 3, purple, inserted on the margin of a cyathiform epigynous disk, unguiculate, concave, with a lacerated scale above the base, and a wrinkled, somewhat plaited disk. *Stamens* 6, 3 alternate with the petals and inserted in the same line, 3 inserted into the petals below the middle; *filaments* linear, membranous, becoming terete towards the base; *anthers* yellowish, sagittate, anterior, two-celled, opening lengthwise, during æstivation cohering by their margins, attached to the filaments by the middle of the back. *Ovarium* woolly, 3-celled, many-seeded. *Style* filiform, thickened towards the apex. *Stigmas* 3, crisp, petaloid, at length becoming convolute.

J. L.

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